SEPTEMBER 1951

ARMY INFORMATION DIGEST

The Meaning of Korea
The Honorable Thomas K. Finletter

Arsenals in Action

Realism in Training

New Navy Weapons

Quartermaster Airborne Operations

Preparing a Unit for Active Service

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LEADERSHIP AT WEST POINT

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ARMY INFORMATION DIGEST

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POWER FOR DEFENSE

Advocating unrelenting adherence to the Nation's rearmament policy, the Secretary of the Air Force states in this issue: "We must not let the strains and deprivations which our arms program will put upon us divert us from our determination to be strong in order that we may be free."

New weapons for our defense effort, currently being developed in the research laboratories of the Navy Bureau of Ordnance and the arsenals of the Army Ordnance Corps, are described in "New Developments in Navy Weapons" and "Arsenals in Action."

TRAINING TECHNIQUES

Recognizing that the battlefield is the ultimate proving ground, the Army stresses combat realism at every stage in the basic training of new soldiers. Some of the latest innovations designed to produce battle-wise soldiers are reported from the Office of the Chief, Army Field Forces.

At the United States Military Academy, where the Nation's future military leaders are trained, fundamentals of psychology are taught as a practical aid to effective leadership. The type of training provided by the Academy's Department of Military Psychology and Leadership and an example of the thinking it evokes are set forth in two articles beginning on page 58.

READINESS NOW

With preparedness the order of the day, there are certain essential steps which commanders in the civilian components can take to prevent confusion and interruption of training time when their units are ordered into active military service. In this issue the Chief, Organization and Training Division of G3, Department of the Army, reviews the administrative steps which will smooth a unit's transition to active duty.

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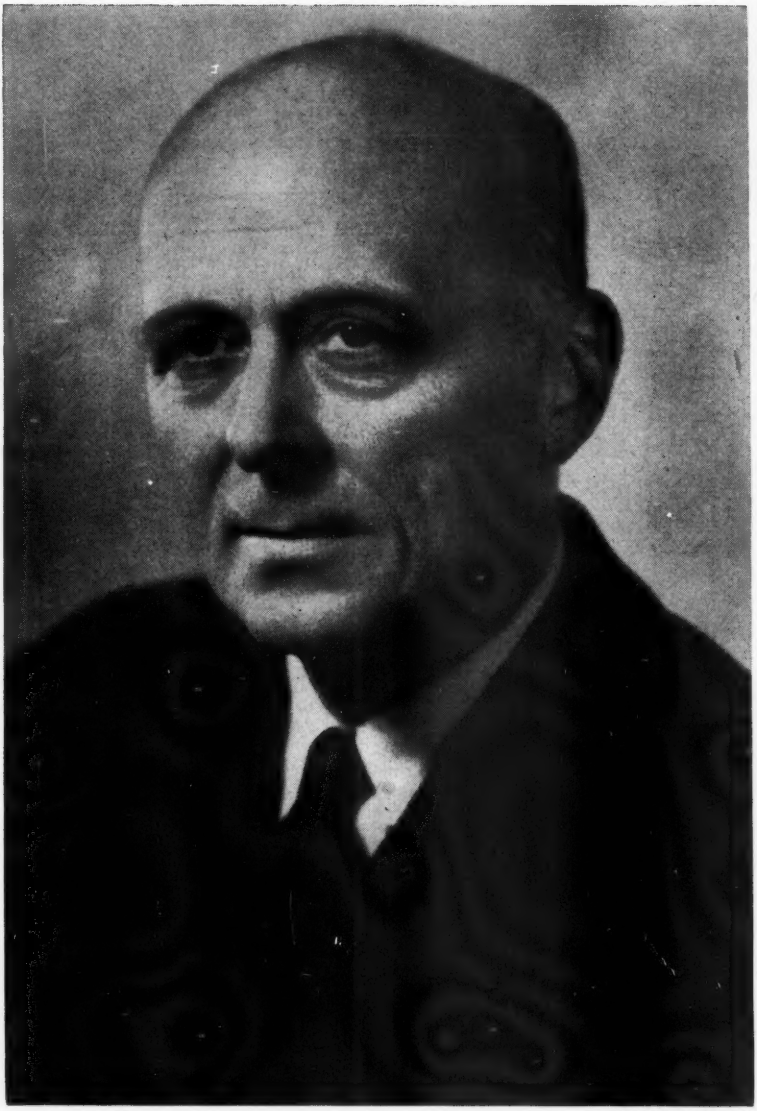

USAF Photograph

THE HONORABLE THOMAS K. FINLETTER

THE MEANING OF KOREA

By

THE HONORABLE THOMAS K. FINLETTER
Secretary of the Air Force

AT this point in our history when American policy is being debated in unprecedented detail, it is important that we understand why our forces, together with those of our allies in the United Nations, have been fighting in Korea. It is important that we understand the high ideals that took us to Korea and the practical considerations that underlay the decision to commit our forces, as part of a United Nations army, in the fighting there.

If we review what has happened, we shall find that our action in Korea has been in accord with the wisest and best traditions of the American people.

The Republic of Korea was created in August 1948 and five months later its independence and sovereignty were recognized by the General Assembly of the United Nations in a resolution in which the United States joined. The United States military government in that Republic was terminated on 1 January 1949 and six months later our troops were withdrawn. When therefore in June 1950 the North Koreans attacked that Republic without warning, the decision we had to make was whether we would stand aside while it was overwhelmed by the Communists or whether we would intervene in defense of the country from which we had just removed our troops and in support of the principles of the United Nations.

We had to make a choice. Would we support the ideals of the United Nations? Or would we, in weakness and cynicism, abandon those principles and allow the United Nations to sink to the same ruin that overtook its predecessor, the League of Nations? The decision which was made on Korea may well rank among the great decisions of history.

From its beginning the United States did its best to keep out of

Extracted from an address delivered at New York City on Armed Forces Day, 19 May 1951.

the wars that beset the other countries of the world and to mind its own business in peace within the relative safety of its own continent. It was with the utmost reluctance that we declared war on Germany on 6 April 1917 and entered World War I. It was against all our traditions and wishes to become involved in a European conflict. It was natural when the victory was gained that we should not be satisfied with the usual kind of peace that merely called for an end to the fighting and made certain settlements of real property. Instead we proposed to set up, with our Allies, a new system—a new kind of international institution that would try to get rid of war itself.

The product was the League of Nations. Its great aim was to unite the most powerful nations of the world for the purposes of peace—to use the combined resources of the nations that did not want war, to stop any nation from precipitating another great cataclysm such as 1914-18. It is quite beside the point whether the organization of the League as it evolved and the machinery it devised were or were not adequate. The great significance of the League was its aspiration—an ideal championed by the United States—to establish collective action for peace.

The important fact about the League is that it did not work. The League failed. And it failed primarily because the leaders of the League were unwilling to stand up against the early acts of aggression of the rising dictatorships of Germany, Italy and Japan. As today, the aggressions of that period took the form of relatively small, usually local, opportunistic actions as a prelude to broader actions—a kind of feeling out, a testing of the collective security system.

We know that Mussolini could not have carried out his destruction of Ethiopia if the leaders of the League of Nations had stood firm. We know that Hitler when he invaded the Rhineland had issued orders to his troops to withdraw should they meet determined opposition by the Allied forces. But at these critical turning points, as earlier in Manchuria, the democratic nations did not realize that by stopping the early and tentative aggressions they might escape the terrible price that eventually had to be paid in meeting an all-out general war.

Aggression by the Japanese in Manchuria and China, by the Italians in Ethiopia and by the Germans in the Rhineland, Austria and Czechoslovakia followed each other with never a determined stand by the nations who had committed themselves to collective security. Once the aggressors learned, as they soon did, that the peace loving nations were not willing to fight to keep the peace, the League was doomed and World War II became inevitable.

The United States was one of those who paid the price for this failure for we were drawn into the Second World War. Once more victory was won at terrible cost. And once again the people of this country demanded a peace settlement which would give them hope of being able to establish a world of peace.

Once again, in partnership with our allies in the war just passed, we set up another organization of which the primary purpose, like that of the first, was to prevent great wars from happening. Here the United States took the lead, and this time our participation in the new organization, the United Nations, was approved overwhelmingly by the Senate and the American people. It embodied the American hope that the sacrifices of two wars would not have been in vain and that the world could be spared the devastation of another World War.

But already, only six years after its founding, the United Nations is now menaced from without by new threats of aggression and from within by a division of purpose. Another powerful aggressor nation has boldly challenged the principles of that institution. Already as a result of that nation's maneuverings a number of once independent nations on its periphery have been brought under its control and a large part of the continent of Asia has been engulfed in war. And once again, as in the middle period between the two wars, we along with the other nations that do not want war have found ourselves confronted with hard choices.

Would we cling to the illusion of peace while the reality of war crept ever closer—while the aggressor, sometimes by stealth, sometimes by overt act, step by step added to his strength by conquest? Or would we take the action necessary to check the aggressor in the commission of his first crimes?

This time the United Nations, mindful of the fate of its predecessor, decided to risk what the League of Nations was not willing to risk. In the hope of averting the final catastrophe, we and the other free peoples made the decision to resist with force the preliminary and probing aggressions.

We met the challenge in Greece. We met it again in Berlin; we met it a third time in Korea.

This determination to give meaning to the principles of the United Nations is, I submit, the meaning of Korea. If we think of the struggle there in this light; if we keep the firmness of purpose to see the Korean struggle through to a successful conclusion, then we may witness, all in the proper time, a universal discrediting of aggression and the emergence of a collective security system that works. On the other hand, if we hesitate or flag in our purpose, if at this time

of decision we lose faith in our ideals, then the prospects for peace will sustain a terrible blow.

When a country is in an all-out war the decisions in a sense are easy. The purpose is a single one—to destroy the enemy. But in a case like Korea which, for all the grievous sufferings, is not an all-out war, the decisions are much harder. A limited war of this kind, terrible though it is, is one which requires infinitely more patience and more wisdom than does an all-out war where survival is immediately at stake.

As part of our search for peace, we and the other nations of the free world are building up our military strength. Despite the prevarications of Communist propaganda, the forces which we are now bringing into being could not possibly be and are not designed for the purposes of aggression. On the contrary their role is so unique that it is hard to find a proper name to describe it. Some call it retaliatory, meaning a defensive force designed to meet a blow with a counter blow. Some call it a readiness force, meaning strength in being as distinguished from strength to be created after the fighting starts. Some call it a deterrent force, meaning a force so strong that its mere size would deter the enemy from his aggressive purpose.

But whatever you call it, the force is one which is trying to keep the peace; and to do this it must have certain characteristics. First of all it must be in being—it has to be ready to go at a moment's notice. And if it is to be a true deterrent it must also be able to strike the most powerful blows.

Beyond this the purpose of our defense force is to shore up the neglected defenses of the free world, to reinforce some weak spots which might entice the enemy to attack. And particularly we must build up the defenses of that essential part of Western society, the continent of Europe.

This build-up is already placing a heavy burden on all our citizens—not only a financial burden in the form of taxes but also, more importantly, a burden in the sense of taking young men away from their normal pursuits at a critical time of their lives. To be sure, even these sacrifices cannot be compared with the sacrifices in blood and hardships made by our fighting men in Korea. Nevertheless they are serious and they are going to become more serious. Therefore they must be understood.

This idea of having simultaneously in being in peacetime large ground and air and sea forces is something new for the United States. Until World War II the limited range and power of weapons, combined with the protecting oceans defended by a naval force in

being, made it possible for us to keep our army and air strength down to small proportions—only enough to serve as a framework for mobilization if war came. Moreover we knew that if war did come and if we should be drawn into it, it would be fought away from our shores and the enemy would be powerless to interfere seriously with the rapid mobilization of our Armed Forces and of the industrial system that equips them.

As recently as twelve years ago the overall strategic plan for the protection of the North American continent made no provision—in fact the possibility was not even mentioned—for dealing with an air attack directed against us. This comfortable immunity has now been lost. Now we have to build up large peacetime forces—Army, Navy, Marines and Air Force—and keep them in being in peacetime at huge expense and sacrifice to the community.

There are two reasons for this change. The first is the new kind of weapons with which we have to deal. Until the development of air power, and particularly of atomic weapons carried by air power, the United States was in the most fortunate position. The only weapon of aggression was the mass land army; and any nation (such as ours) which was so located geographically that a mass land army could not get at it was safe from aggression provided it could keep a land army from moving across the sea approaches. Now, however, the United States itself can be subjected to an attack through the air with the most powerful weapons of destruction that man has yet had in his hands.

This is the new reality we Americans must face. Not only is it possible for an enemy to make this kind of attack at this very moment, but there is as yet no impenetrable defense against such an attack. And the potential violence of this attack is becoming steadily greater. The day may well come when we will be vulnerable to an attack which in itself could be decisive in the initial phases of a war.

As to the techniques of meeting such an attack, we must remember that the business of war is a see-saw for supremacy between the offense and defense. It may be that in the future, protection against such an atomic attack will become better than it now is. But at the moment the most reliable defense is the ability to deliver a smashing counter blow which would be so violent that the original attack upon us would not be made.

The force that we need to do these things will be very great and expensive indeed. But more than this, we have to provide land, sea and air forces as the United States' contribution to the defense of Europe. For the United States has learned by bitter experience that it is an integral and extremely important part of the free world,

and that unless we take our part in the creation of the forces in being which will protect the vital centers of the free world we ourselves will be in mortal peril.

This will be a heavy burden. The money cost will be tremendous. The dislocation in the lives of our citizens will be most serious. But it is part of the price we must pay for our leadership in the cause of security and peace.

And just as it will require the greatest of patience and wisdom for us to carry the Korean action to a successful conclusion, so will it take almost equal determination and wisdom to keep up this program of defense.

The United States, as the leader of the free world, has two tremendously difficult tasks ahead of it—tasks that will try its patience to the limit. First we must be steady and dogged in our policies in Korea and the Far East. And, second, we must be unrelenting in our policies of rearmament.

We must not let our sense of impatience at the complexities and sufferings of the war in Korea divert us from the high purpose and great stakes which are there at play. We must not let the strains and the deprivations which our arms program will put upon us divert us from our determination to be strong in order that we may be free.

No study is possible on the battlefield; one simply does what one knows. Therefore, in order to do even a little, one has already to know a great deal and know it well.

Marshal Foch

PROFILE OF THE ENEMY SOLDIER

By

CAPTAIN ROBERT J. LOESCH

WHAT is your picture of the Communist soldier fighting the United Nations forces in Korea?

Does he fit the description of the ideal Communist soldier as suggested by one Far Eastern newspaper? Is he a man with big ears designed to catch late changes in the Communist Party line and to eavesdrop on his family and friends? Does he have a small head because he doesn't have to think, depending instead upon his Communist leaders to tell him what to do? Does he smile broadly, professing happiness with the Party? Does he have big hands for planting more and more rice or does he have a small stomach designed to consume less rice? Are his feet over-sized to allow him to parade in honor of the Party? And does he show a tendency to lean to one side?

No, he is not the ideal Communist as described by the *Hong Kong Standard* nor is he always a fighting demon or a dyed-in-the-wool intellectual professing the Marxist doctrine. Neither is he a superman nor is he equipped as well as a United Nations soldier.

If the Communist soldier is not the myth that many have made of him, then just what is he like?

The "average" Communist soldier fighting in Korea is usually a simple peasant about five feet seven inches tall and weighing approximately 140 pounds. He is in his mid-twenties and may have a wife and children awaiting his return. He most likely is a farmer with three to five years of schooling. He may have been in Chiang Kai-shek's Chinese Nationalist Army or the Chinese Communist People's Army or he may have come from North or South Korea. He has been conscripted or has volunteered as a soldier with the Communist Army in Korea, Manchuria or China.

He gripes about incessant night marches, bad treatment from his

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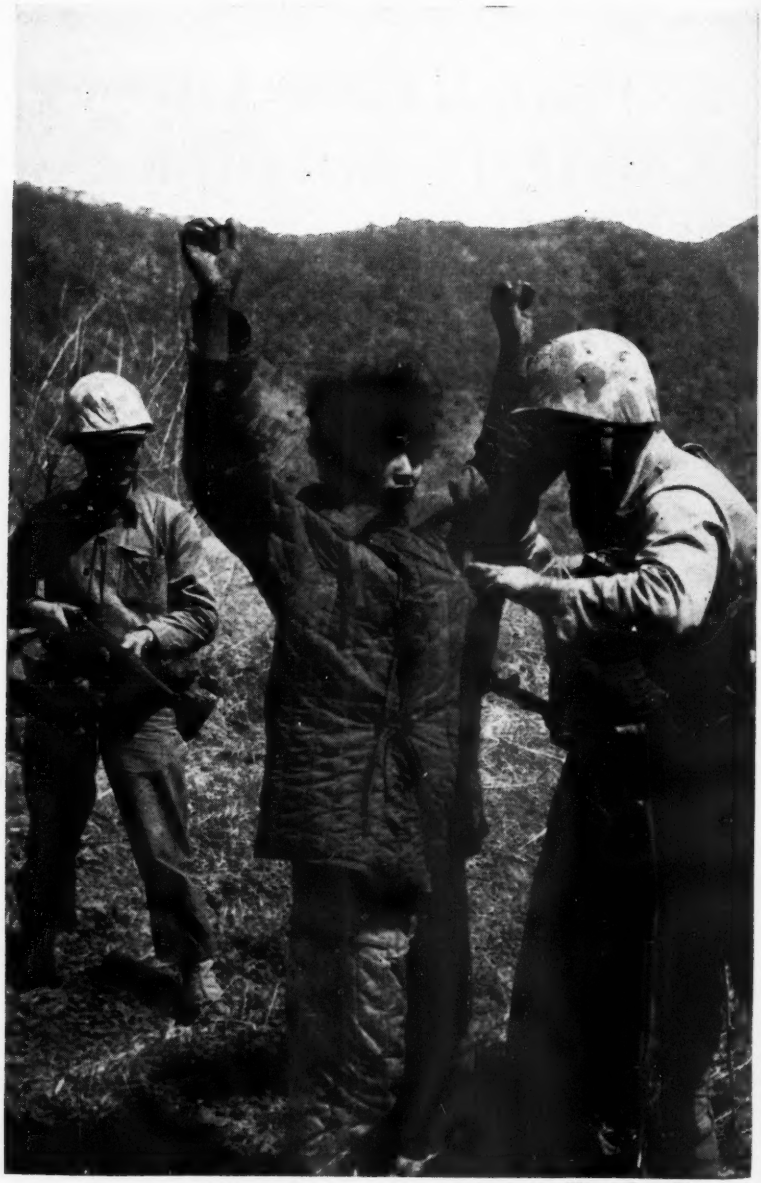
CAPTAIN ROBERT J. LOESCH, Artillery, is an Assistant Public Information Officer, Eighth United States Army in Korea (EUSAK).



Marine Corps Photograph

Typical of the Communist soldiers are these two prisoners being searched by a Marine while another maintains careful guard. Second prisoner is just behind the Marine in foreground.

officers, lack of adequate clothing and medical care, the frequent United Nations air attacks and lack of artillery and air support.

He probably cannot read or write and knows little about the outside world. His chief concern is not for the ideological principles involved in the struggle or the Communist charge of "imperialistic aggression." He is mainly interested in keeping alive and being able to obtain his daily quota of *kaoliang* (a grain similar to Indian corn), rice, fried flour and millet.

The Communist soldier in Korea leads an austere and disciplined life fraught with hardship. He has little, if any, contact with the civilian population and rarely is he provided amusement to break the monotony of his existence.

In his army, leave is unheard of and there are no chaplains. There is no post exchange to furnish the little luxuries of life and often even essentials are denied him. As a private he draws the equivalent of approximately 30 cents a month—hardly enough to pay for his tobacco, toilet articles and Party fees.

Whereas the average American soldier receives the best clothing and equipment that his country's ingenuity can provide, the Communist is issued the familiar cotton-padded uniform, a pair of rubber-soled shoes with canvas top, a blanket and a water-resistant cloak. Slung over his back is a haversack in which he is likely to have a mess kit, canteen, metal bowl with lid and chopsticks. His diet consists of a small allotment of rice, maize or *kaoliang*. Meat is seldom served to the lowly soldier. Although he receives hot meals while in the rear areas, in combat his food usually is cold for it has been cooked under cover of darkness the preceding night.

In training he spends as much time listening to political propaganda as he does learning to use his weapons. He never hears the United Nations mentioned—his enemy always is the United States. As a soldier he becomes entangled in the political web of Communism which the Party has spun throughout its army. Each battalion has its political commissar who specializes in propaganda and Communist indoctrination. Each platoon has a certain number of strong, loyal Communists whose duty is to check on other Party members. At the squad level, every two men are responsible for a third man; thus, in theory, every man is watched. No freedom of thought or action exists under his Communist regime. Desertion is difficult and punishable by death.

In action he carries a bandolier containing a three-day ration of rice, his ammunition and rifle and—depending on his mission—hand grenades. He and his companions fight with an assortment of arms originating from as many as eleven different countries. Re-

cently it has been found that he is most apt to be armed with an American, Japanese or Soviet weapon.

His unit goes into battle approximately 70 per cent armed. If he is in the infantry, his squad is divided into three or four assault teams of three or four men each. He usually moves forward in preparation for the attack at 1700 hours, with the jump-off occurring at approximately 2000 hours. The basic Chinese Communist doctrine employs the principle of fighting furiously in order to end resistance rapidly. Every attempt is made to complete the attack by 0200 hours so that troops may be in concealment before daylight. In the attack his platoon is formed into a column of assault teams. At a given signal, the 12-man squad deploys, carrying submachine guns and hand grenades. If the leading elements do not crack the line, a second or third wave is thrown in until a breakthrough is accomplished. Generally the Communist units attempt to attack a weak point from two directions in a double envelopment.

Perhaps the case histories of three Communist soldiers—Tang, a former Chinese Nationalist soldier; Ning, a member of the Chinese Communist People's Army; and Kim, a former Korean trader—will reveal much about the enemy we fight and what he undergoes.

Tang is a former wine dealer who has been a soldier for three years. He was inducted into the Chinese Nationalist Youth Army

U. S. Army Photograph

A soldier of the United States 8th Cavalry Regiment captures a Chinese Communist during an assault on an enemy position in Korea.

in 1948 and transferred to a Chinese Nationalist unit where he received several months of basic training. Later he was sent to another organization which was finally deactivated in 1949. Tang was then accepted as a rifleman in one of the Chinese Nationalist units which eventually surrendered to the Peoples Liberation Army (Communist). With other captured Nationalists, he was subjected to Communist indoctrination but received no military training.

In 1950 Tang was moved to a Chinese city where his organization was absorbed into an army group of the Chinese Communist Peoples Army. The former Nationalist Army platoon leaders and company commanders who were sympathetic to the Communist cause were retained as officers while all others were made privates. The former Nationalist soldiers were gathered together for physical training and close order drill. Approximately half of each of the reorganized companies consisted of former Nationalist Army personnel.

Before leaving this area they were prepared and equipped for winter operations. Later they entrained for Manchuria, rested there for several days and then crossed the Yalu River into Korea. For several weeks Tang and his companions engaged in night mountain training, then returned to Manchuria where each trooper was issued fifteen pounds of *kaoliang*. After a short stay in Manchuria, they recrossed the Yalu, at which time Tang sprained his ankle and was placed in a medical station. After recuperating, he was moved to join a Chinese Communist Forces unit then reorganizing after an engagement with United Nations forces.

While in the assembly area, Tang observed that replacements were arriving without their basic weapons. These replacements and other members of his unit were issued captured United States carbines and light machine guns; replacements arriving later were furnished Russian weapons. In the rear area Tang usually ate two hot meals a day consisting of rice and pickles prepared by company cooks. On marches he was limited to two meals a day—mainly ground grain with cold water. He and his companions found this fare insufficient and most of the time he was hungry. The raw wind and bitter cold pierced Tang's body. He had received no additional winter clothing since entering Korea. Morale, such as it was, was low. His army had suffered severely from the combined fire power of the United Nations units and the men were depressed over the lack of food and the long, tedious night marches.

And the marching had just begun. The army moved again and once more engaged in night mountain training and familiarization firing of captured United States weapons. Finally, hungry, footsore and weary, Tang fell behind his unit during a forced march in dark-

ness. When a Republic of Korea (ROK) patrol approached, he threw up his hands and surrendered.

The experience of Ning, a private conscripted into a Chinese Communist Forces recruit company in 1948, closely parallels that of Tang. Ning had received several years of primary schooling as a child and later became a farmer. After conscription, he was given several months of basic training and political indoctrination, then was assigned to a Chinese Communist unit as a rifleman. Following further weapons training, he fought with his army against Chinese Nationalist units during the early part of 1949.

Ning then returned to his old occupation of farming and cultivated the land for more than a year. In 1951 his unit was ordered to Manchuria and Ning's long trek began. When he crossed the Yalu River into Korea, he carried his own rations. Even so, during the difficult march from the Yalu to the combat area, Ning always was hungry.

As the march continued, the lack of food, the fatigue and constant fear of attacks by United Nations planes had a demoralizing effect. Ning was homesick and had no desire to fight in Korea but strict discipline and the ever-watchful officers, noncommissioned officers and Party members made desertion next to impossible. His tired feet finally brought him to the front. Soon he was sent out on patrol and conveniently became lost. When approached by a ROK patrol, he surrendered voluntarily. Such was life with the Communist forces for Ning.

Still another fighting man was Kim, a young Korean serving with a North Korean Communist rifle division. Kim had made his living as a merchant in North Korea before he was conscripted into the North Korean Communist Volunteer Group in 1950. Shortly after his brief basic training he was injured during a United Nations air attack. He was hospitalized for several weeks and then assigned to a replacement battalion. Here he received further military training and political indoctrination. After completing his training, Kim was ordered to a North Korean rifle division as a squad leader.

Kim's squad received replacements who had no training. His unit had to confiscate food from villages in order to subsist. His men suffered from dysentery and multiple tick infections. Medical care was limited, although members of the squad did receive inoculations.

Moving with his division, Kim marched toward Seoul. Artillery fire and air attacks hounded the unit's movements; weapons and ammunition were scarce and food was hard to find. Early in 1951, his division was committed to the south and Kim constantly was moving, or digging trenches to provide cover from air and artillery fire. Life

was miserable indeed, but Kim survived the rigors of combat and returned to the Seoul area. Later, as the Communists prepared to take the offensive, Kim's company was dispersed by United Nations artillery fire. Finding himself separated from his comrades, Kim threw up his hands and surrendered.

These accounts should not lead to the presumption that *all* Communist soldiers would surrender if given the opportunity, for within their ranks are a number of fanatics willing to give their lives in the Communist cause. Private Wu was one of these die-hards. Ordered to stand his ground for 30 days, he crouched in an adobe hut as elements of a United Nations armored task force entered the village where he was hiding. When Wu's position was discovered, an interpreter was sent to convince him that to hold out further was useless and that good treatment would be given him if he surrendered. He answered with gunfire. A miniature battle raged for several minutes as tank, recoilless rifle and small arms fire poured into the hut. The shattered building soon was ablaze but Wu was still alive and defiant. He finally decided to run for it but was caught by a spray of bullets. Sinking to the ground, he made a last feeble attempt to raise his rifle to his shoulder. Another burst of fire halted the effort. Wu died a victim of his vain determination.

U. S. Army Photograph

On their way to be interrogated are these three Chinese Communist prisoners under guard of 1st Cavalry Division Military Police.

ADMIRAL FORREST P. SHERMAN

(1896-1951)

"Remember always that you must know your men as individuals and that your men must feel that you do know them. Foremost in every man's heart is the desire to be known, to be appreciated and understood, to be an individual recognized as your shipmate or your comrade-in-arms, on a basis of mutual respect and mutual confidence."

FORREST P. SHERMAN

ADMIRAL Forrest P. Sherman, former Chief of Naval Operations, United States Navy, was born in Merrimack, New Hampshire, on 30 October 1896 and graduated from high school in Melrose, Massachusetts. He attended Massachusetts Institute of Technology before entering the United States Naval Academy from which he graduated with distinction and was commissioned an ensign in 1917.

During World War I, Admiral Sherman served in European waters aboard the *USS Nashville* and the *USS Murray*. After a succession of assignments with the Atlantic Fleet, he reported to the Naval Air Station, Pensacola, Florida, for flight training in June 1922. He was designated a naval aviator in December 1922 and served in naval aviation positions both afloat and ashore. He attended the Naval War College in 1926 and was an instructor at the Naval Academy in 1930 and 1931.

From February 1940 to February 1942, Admiral Sherman was in the War Plans Division of the Navy Department in Washington. He assumed command of the *USS Wasp* in May 1942 and was commanding officer of that carrier when it was sunk in the Solomon Islands area in September 1942. He later became the Chief of Staff of Air Force, Pacific Fleet. In November 1943 he was named Deputy Chief of Staff to the Commander in Chief, Pacific Fleet and Pacific Ocean Areas.

Besides representing the United States Navy in the surrender conferences with the Japanese in August 1945, Admiral Sherman was aboard the *USS Missouri* when the formal surrender was signed. From December 1945 to December 1947, he was the Deputy Chief of Naval Operations (Operations) of the Department of the Navy. He was ordered to duty as the Commander, Naval Forces, Mediterranean, in December 1947. He became the Commander, Sixth Task Fleet, in February 1948. In November 1949 he was appointed Chief of Naval Operations and Navy member of the Joint Chiefs of Staff.

Admiral Sherman was the youngest Chief of Naval Operations in the history of the United States Navy. He also was the first Navy flier to hold that position in peacetime. At the time of his death in Naples, Italy, on 22 July 1951, he was on a special mission to Europe in the interest of Western European defenses.

Decorations held by Admiral Sherman include the Navy Cross, the Distinguished Service Medal, the Legion of Merit and the Purple Heart Medal.

PREPARING A UNIT FOR ACTIVE SERVICE

By

BRIGADIER GENERAL D. A. D. OGDEN

EVERYBODY from the commanding officer down to the newest recruit was agog upon learning that their organization had been ordered into active military service with the Army. The announcement touched off a wave of excitement and interest that swept the entire area represented in the unit. Families, friends and business associates all were vitally concerned. A flurry of activity followed in which officers and enlisted men rushed to put their personal affairs in order. For the unit commander, all this was just the beginning.

The transition of an organization from peacetime status to active military service requires a tremendous amount of detailed work. Even many of the old-timers who had undergone the same experience between 1939 and 1942 find themselves confused. There have been many changes, they discover, including different pay regulations, new clothing allowances, new personnel procedures—especially the Career Management Program—and new tax withholding rules.

National Guard units whose peacetime training status does not require all of the procedures required of active Army units are faced with the problem of getting adjusted quickly to additional Army administrative methods. Theoretically a National Guard or an Organized Reserve Corps unit called to service should be able to complete this transition by the time it reports to camp to begin its intensive training. However, this will be true only if there has been adequate advance planning and all necessary records are in proper shape.

So far six National Guard Divisions, two Regimental Combat Teams, many smaller units and a large number of Organized Reserve Corps units have followed the pattern—the excitement of the initial announcement, settling personal affairs and then the detailed adjustment to Army ways, methods and procedures.

A survey of some of these units shows that they met many vexing problems which sometimes can require thousands of man-hours to

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BRIGADIER GENERAL D.A.D. OGDEN, USA, is Chief, Organization and Training Division, Office of the Assistant Chief of Staff, G-3, Operations, Department of the Army.

straighten out. In most instances, advance planning, training of certain key personnel and a foreknowledge of Army Regulations and Special Regulations will obviate these time-consuming difficulties.

Units that are not now in the active military service but which under present unsettled world conditions might be ordered to active duty may well profit by the experiences of those organizations which have been mobilized. Three primary steps which can be instituted immediately would put them in a better position to minimize the confusion and lost man-hours sustained by the others: First, unit commanders and their key personnel should familiarize themselves with the steps to be taken when ordered to active service. Second, all personnel records should be kept up to date and in order, especially 201 files, Records Jackets, individual records for officers and warrant officers, and NGB Form 24 for National Guard enlisted personnel. Third, personnel and supply sections should be prepared by advance training (and special schools if possible) to carry out all administrative procedures, regulations and directives pertaining to entry of a unit into the active military service.

The experience of Organized Reserve units called to service shows that failure to maintain records in up-to-the-minute condition will cause most difficulties. ORC units that have kept their records in good shape will have few administrative problems. Since these organizations are more familiar with Army forms and procedures, they do not face the same problems as the National Guard units.

For National Guard units being ordered into active service, Army Regulations 130-10 and Special Regulations 130-10-1 spell out in detail the steps that must be taken. Guide for ORC units is Army Regulation 140-300. A knowledge of these regulations will assist unit commanders and key personnel.

From the experience of units already mobilized, it is apparent that administrative problems can account for most difficulties. One division reported that classification of personnel, training in current Army personnel methods, the new Career Management Program requirements, the changeover in forms and their uses, problems of discharge, the new Dependents Assistance Act, tax withholding requirements and the administration of physical examinations and of initial billeting—all these and others presented problems in intelligence, training and logistics as well. In the matter of finance records alone, lack of experience and knowledge of procedure could require many extra man-hours of clerical work to implement the Army's new pay system.

A checklist of nearly 50 items prepared by the Department of the Army and contained in Special Regulations 130-10-1 summarizes step

Checklist for Units Ordered Into Active Military Service

	STEPS TO BE TAKEN	REFERENCES	FORMS NEEDED
PRIOR TO CALL-UP — INACTIVE DUTY TRAINING PERIOD	Have unit commanders and key personnel familiarize themselves with regulations	AR 140-300 (For ORC Units) AR 130-10 SR 130-10-1 (For NG Units)	
	Begin training special and administrative personnel, especially in differences between NGB and Army forms, methods, procedures		
	Get all forms and records in order; maintain in proper shape		
	Make tentative arrangements for physicians and dentists to give physical examinations		
	Where necessary, make tentative arrangements for housing and messing facilities at rendezvous points		
IMMEDIATE STEPS AFTER INDUCTION (PRIMARY)	Notify members of unit to report		
	Establish unit mess, obtain rations, supplies	AR 30-2210	
	Establish sleeping quarters		
	Arrange for care of sick	SR 40-505-11	
	Arrange for physical examinations	AR 40-105 AR 40-115 AR 40-215 SR 600-450-1	Standard Form 88, Report of Medical Examination; WD AGO Form 8-117, Immunization Register
	Open Daily Sick Report	AR 345-415	WD AGO Form 5
	Institute Morning Report	AR 345-400	WD AGO Form 1
	Prepare Initial Roster	AR 345-900	WD AGO Form 309 WD AGO Form 6, Duty Roster; WD AGO Form 10, Guard Report.
	Prepare Officer, Warrant Officer Active Duty Report	SR 135-210-1	DD Form 220
	Prepare Service Record (Close Out NGB Form 24)	SR 615-20-1	WD AGO Form 24A or DD Form 230; WD AGO Form 25, Extract Service Record
	Prepare Fingerprint Card	AR 345-120	
	Prepare Record of Emergency Data	SR 600-105-1	DD Form 93
	Prepare Report of Home Address	SR 600-105-20	DD Form 53
	Forward Enlistment Record		NGB Form 21
	Complete and forward Officers Retirement Credit Record		NGB Form 23
	Arrange for disposal of property	AR 210-50	DD Form 251, Council Book; Standard Form 1034
		AR 35-6560	Public Voucher DA AGO Form 14-34; Statement of Charges, Report of Survey, DD Form 200
IMMEDIATE STEPS AFTER INDUCTION (SECONDARY)	Arrange for pay	SR 35-2000 Series	
	Arrange for transportation	AR 55-120	
	Pay for credit contracts	SR 40-505-11	
	Report on separations	AR 615-360 SR 615-360-1	DD Form 214
	Complete Withholding Tax Records	SR 35-1810-1 SR 35-1810-2	
	Screen key personnel	SR 600-220-1	

by step the essential matters to be accomplished after the order is received. The unit commander first must notify members of the unit to report. Difficulties can be encountered even at this stage if records are not up-to-date.

Before the date of reporting, the unit commander must provide facilities to care for personnel. Armories or other specified points must be placed in readiness and a unit mess set up. Unit commanders are authorized (SR 130-10-1 or AR 140-300)* to purchase meals for the unit if it is not feasible to establish a mess. Cost of meals for a day is not to exceed three times the value of the garrison ration per man. If the armory is inadequate as quarters, the unit commander may in emergency contract on credit for necessary housing at local rates. He also is permitted to employ a civilian physician, procure medicine and provide for suitable hospitalization when needed (SR 40-505-11). In order to pay for necessary expenses, the unit commander is authorized to act as a Class A agent officer without waiting for orders.

With housing and feeding provided for, physical examinations assume first priority (ARs 40-105; 40-115; 40-215; SR 600-450-1). Some units reported that considerable delay was encountered because smaller cities had no facilities, the examining staff was unfamiliar with forms and procedures and some contract physicians lacked proper forms and instructions.

Following entry into active military service the first forms to be instituted by the unit are the Morning Report (AR 345-400; SR 345-400-1) and the Daily Sick Report (AR 345-415). The Initial Morning Report must be prepared beginning with the effective date of entry into the active military service for each T/O&E organization and unit, to include state headquarters and headquarters detachments.

The Initial Roster (AR 345-900) is required of each unit submitting a Morning Report. This is extremely important since it is used for historical purposes and is the initial basis for payment.

On the day following entry into the active military service each officer and warrant officer must prepare and forward his Active Duty Report (SR 135-210-1) to The Adjutant General of the Army. At the same time, NGB Form 24 for National Guard enlisted personnel must be closed and a new Army Service Record (SR 615-20-1) opened. Administrative burdens can be reduced by filling in the Service Record before forwarding NGB Form 24 to the appropriate State Adjutant General.

Military Fingerprint Cards (AR 345-120), a Record of Emergency

*Titles of pertinent regulations, and form numbers and descriptions where applicable, are listed on opposite page.

Data for the U. S. Army (SR 600-105-1), and a report of home address and time of last entry into service (SR 600-105-20) also must be prepared. For National Guardsmen, final items to be completed and forwarded to proper officials include Enlistment Records (NGB Form 21) and Retirement Records (NGB Form 23).

The new Career Management Program instituted since the end of World War II presents additional problems for National Guard units, with classification processing sometimes requiring up to 10 hours per individual. One commanding general has suggested that a *recommended* Military Occupational Specialty (MOS) be assigned to all personnel prior to entry into active military service. He also recommended that National Guard personnel be given periodic instruction in classification and assignment techniques (SR 615-25-25; TM 20-605) and when possible a refresher course be given immediately prior to date of mobilization.

The new Dependents Assistance Act (SR 35-1465-5; SR 35-1465-10; SR 35-1465-15) and the procedure for withholding taxes (SR 35-1810-1) create problems in administration. Knowledge of these new details and forms can enhance efficiency.

The steps as outlined above must be taken before the unit goes to the training camp. But there are other steps which a unit commander must accomplish before moving from the rendezvous area. He completes payment for purchases made on credit, for medical care and the like (SR 40-505-11). He reports to the next higher command on sick and injured, enlisted persons discharged after medical examinations, status of enlisted persons AWOL and strength increases if any. He also reports any need for extra funds for emergencies and prepares payrolls for armory drill pay.

In this intermediate stage the unit must open a new Council Book and account for nonappropriated funds and property under appropriate Army regulations. The alert commander also will find it advantageous to procure maps of the training station area and to send an advance detail to prepare for reception of men and equipment.

Besides these administrative details, the fields of intelligence, training and supply pose problems. Screening of key personnel (SR 600-220-1) must be accomplished within 45 days of reporting to the training station. Instituting a program now to insure that this vital requirement is fulfilled will remove one additional administrative problem when the unit is ordered into active service.

One division commander stated that no Counter Intelligence Corps detachment had been assigned to his unit even after it was in camp for some time. Steps should be taken by divisions to secure the services of such a detachment immediately.

Training problems can arise due to variations in individual training efficiency within and between units. More instructors are then needed which results in a shortage of training personnel. It has been recommended that National Guard divisions be assigned automatic quotas for service school training at least three months prior to actual date of attendance in order to allow time for screening and preliminary administrative work.

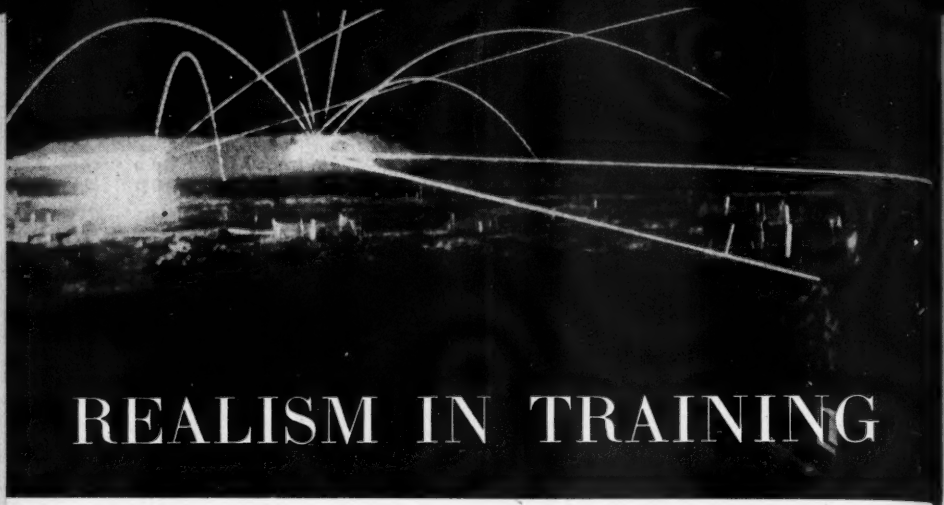
In the field of supply, lack of adequate pre-mobilization planning by units can cause confusion and loss of time. The new Cash Clothing Allowance System (SR 32 Series), for instance, poses problems which have sometimes had to be solved by reverting to the bulk issue of clothing for Guard divisions. An adequate supply of property book forms, issue slips, laundry forms and turn-in slips must be obtained to prevent difficulties.

Certain issue items which are not authorized while a Guard unit is under State jurisdiction must be requisitioned. These include cleaning, preserving and other housekeeping materials, sanitary equipment and even certain items of office equipment.

All in all, experiences of organizations ordered into active service since July 1950 show that much extra work is required with attendant loss of time if problems in administration, intelligence, training and supply are not anticipated and prepared for. Most of these problems can be solved in advance by units and organizations before entering the active military service. Once these are mastered, immeasurable benefits accrue. Efficiency is increased and manpower can be more effectively used in training.

Maximum military effectiveness demands the highest kind of business efficiency so as to get the most out of the men, money, materials and time available with which to defend our country.

General Joseph T. McNarney



REALISM IN TRAINING

By

LIEUTENANT COLONEL WILLIAM H. WITT

REALISM is the keynote of the Army's ten training divisions and twelve replacement training centers now operating at high gear under the emergency expansion program. Subjects are taught under the most combat-like conditions possible and even a flesh and blood simulated enemy is provided in the form of an Aggressor Force replete with the uniforms and tactical doctrines of a mythical foreign power.

Gone are the stodgy classrooms of a bygone era where the rudiments of military science were drilled into recruits by the "book" method. Practical instruction on the target range is supplemented by various types of field firing in which the trainee learns the combat application of his weapon's fire power. The basic soldier learns to respect the power of tactical aircraft, particularly when Army light observation planes sweep low in mock strafing attacks or drop simulated bombs in air strikes.

This type of training not only conserves time but points up to the new soldier the practical interrelationship of military subjects as they would be applied in combat. At every training center new methods are constantly sought to make instruction more practical and more readily understandable to the trainee. Every effort is made to produce effective training aids which will enable the soldier to visualize the subject and absorb instruction.

The basic training program consists of 16 rugged weeks designed to produce a soldier who is proficient in the use of his weapons, who understands teamwork and his place on the team and who is

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physically hardened and mentally conditioned for the rigors of the most arduous type of warfare. Subjects which are useful to know but not vitally essential in combat have been trimmed or eliminated in favor of those subjects which are absolutely necessary for effectiveness in battle.

Recently upon recommendation of the Office, Chief of Army Field Forces the basic training period was extended from 14 to 16 weeks, not for the purpose of including additional subjects but to increase the amount of time devoted to those subjects which will make the soldier more proficient on the battlefield. The objective is to make the application of combat techniques second nature to him. The extra two weeks will do much to accomplish this.

When fighting broke out in Korea the Army had four training divisions which were giving branch immaterial training—that is, producing basically trained soldiers without specific branch qualifications. These soldiers became specialists only after assignment to a unit and further training in that unit or at specialist schools. When the tempo of training was accelerated and new training installations were added, the programs of the training divisions were converted to branch material training. Certain training divisions turned out infantrymen, others artillerymen or tankers to assure a flow of branch-qualified replacements to Korea. Under the expansion program separate replacement training centers also were established for administrative and technical services.

Regardless of the type of training installation, however, every soldier is basically trained to fight as an infantryman. This move was directed by General Mark W. Clark, Chief of Army Field Forces, even prior to the outbreak of hostilities in Korea. Incidents in Korea in which the enemy infiltrated to make attacks on headquarters and rear supply installations have demonstrated the importance of every man, regardless of his duty assignment, being able to take his place alongside the infantry in emergencies.

Two training innovations have been introduced—the concurrent and the integrated methods. Under the concurrent method two or more subjects are taught separately in a single training period to conserve training time. While one group is on the firing line of a rifle range, other groups waiting to go up receive instruction in some phase of the weapon's use. In integrated training two or more subjects are taught together in one training period to show the practical relationship of one subject to another. Map reading, use of the compass, and marches may be combined, for instance, when a soldier charts his course, then finds his way by compass and marches to a training site. Concealment and camouflage instruction

is similarly integrated with cover and movement. Every minute is precious and every minute is utilized.

Some of the methods introduced in World War II to add realism to training have been re-instituted, including the well known infiltration course, close combat and combat-in-cities courses.

Every man goes through the infiltration course once in daylight and once under cover of darkness. A company of men enters a starting ditch. At a signal from the control tower, machine guns which are firmly mounted and fixed to assure safety start firing live ammunition over the heads of the men. The men move out of the trench and crawl 75 yards to the finish line. Each soldier inches forward on his stomach keeping his rifle out of the dirt and his head and body down. There are obstacles in his path—barbed wire barriers under which he must pass on his back and logs over which he must roll. At frequent intervals demolition charges are set off to simulate actual battle situations. Finally, to keep the importance of the bayonet uppermost in the trainee's mind, he is required to roll into the finish trench, fix his bayonet, crawl out and charge a dummy enemy.

Constant improvements are being made on the combat-in-cities course. In mock villages constructed at all training installations, trainees using live ammunition and grenades learn how to cover each other in the progressive advance from house to house; they learn, too, how to toss grenades into buildings before entering. Concurrent training plays its part, for the trainees must also practice precisely how long to hold a grenade after the safety pin is released before tossing it on the target. All too frequently in actual combat the enemy has tossed grenades back to the senders because they were thrown too soon.

The close combat course—another of those labeled "battle indoctrination"—tests a man's ability to handle himself under unexpected conditions. The signal is given and a squad, its weapons loaded with live ammunition, charges toward an objective 100 to 200 yards distant. The trainees hurdle barbed wire barriers. Charging between still other barriers they are confronted with targets of opportunity—man-sized silhouettes which spring up from the ground, set off by trip wires. The men fire at these and run forward over other obstacles. They cross a stream on a single log and hurdle barriers in their path. At the end of the course they attack an enemy emplacement and shoot down additional dummies.

As an aid in avoiding panic and hysteria on the battlefield, the new soldier is exposed to the noise and confusion of combat. During an attack problem, a unit advances toward an objective which is under artillery fire. Here again the practical aspect is emphasized.

Instead of merely sitting and listening to the shells passing overhead, the unit engages in a tactical problem during the advance. The group watches the target area being softened up and then moves on to the objective. The trainee is taught to respect enemy artillery but not to fear it, and he learns to appreciate the aid which friendly artillery offers. In other problems artillery, mortars and machine guns firing live ammunition may be employed. Where conditions permit, the trainee crouches in his foxhole while a tank passes over him. This, too, is designed to instill confidence and the ability to act calmly.

During the training period most new soldiers witness a representative group of combined weapons of a division firing simultaneously. This demonstrates the enormous fire power that a standard American division carries in its weapons and familiarizes the new men with the weapons available in several types of divisions.

In every field problem where the situation requires, trainees fire their weapons, using blank ammunition. Under the new system of teaching the technique of fire, the trainee moves into an area, is fired on, and then proceeds to a firing point where he takes position and proceeds to cope with his opposition. Every effort is made to train each man in the use of his weapon; he learns its capabilities and limitations and comes to regard it as vital not only to the accomplishment of the mission assigned to his unit but to his own preservation. Everywhere he goes during the training day the new soldier carries his weapon with him—in the field or classroom.

Aggressor Force plays a prominent role in the training program by injecting a practical atmosphere into field problems. Equipped with the uniforms and weapons of a mythical enemy, Aggressor troops employ a variety of devices to create realistic battle noises; they duplicate the sound and flash of artillery and use pneumatic mock-ups to simulate weapons emplaced under accepted tactical conditions. By firing blank ammunition from their own small arms against the attacking forces, they provide sufficient resistance to make the problem a very real one.

Practice mines which can be detonated without harming a man make the trainee acutely conscious of this hazard and give him experience in mine laying. At most training installations groups of men pass through mine fields, mark or detonate the mines and then re-lay them in different spots for the next groups to discover.

The Army's light aviation is proving to be of considerable value in basic training. Planes are used for a variety of purposes—in teaching the adjustment of artillery fire, in simulated bombing attacks, reconnaissance, camouflage and communications. Besides

serving in aerial delivery and pickup of messages, they are also used in teaching wire laying in communications schools.

Physical conditioning goes hand in hand with military training. In addition to physical training exercises (including log-lifting) the trainees go through the strength and confidence courses in which they scale walls, climb ladders and perform other body toughening feats. Physical conditioning is a continuous process, integrated with other training. Marches and bivouacs, short fast marches to and from training areas and classrooms, dismounted drill, gun drill, digging foxholes, machine gun and mortar emplacements and bayonet drill—all combine to build a man physically for the rigors of combat. For at least two weeks of the training period the men live in pup tents and train in the field regardless of the weather. One-third of all tactical training is done at night so that the men will be prepared for action under all conceivable conditions.

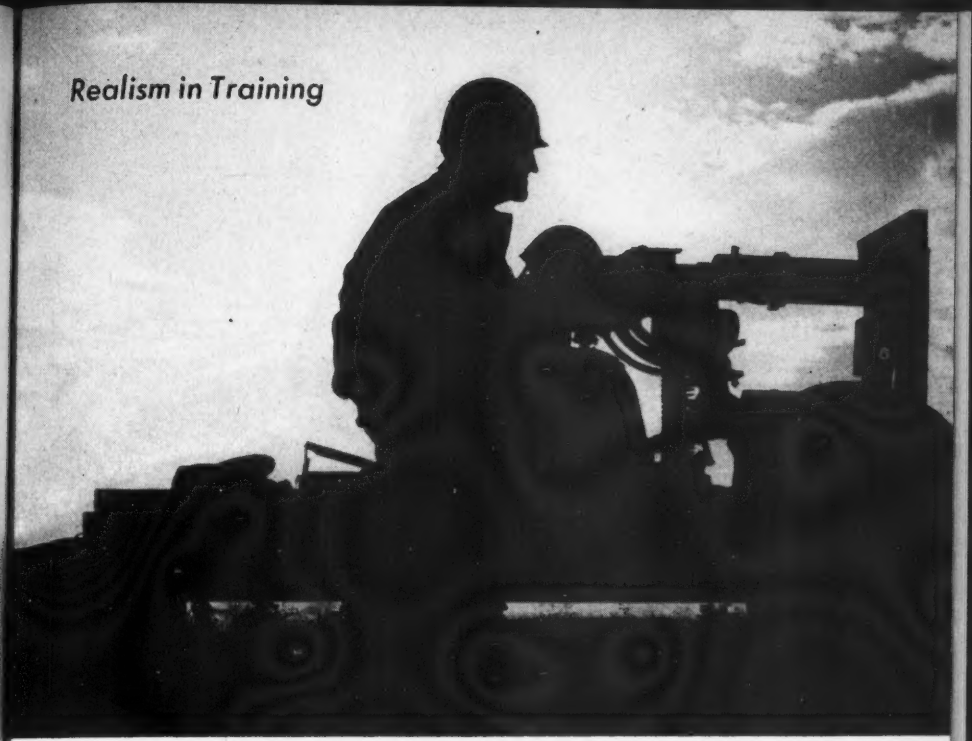
The Army never gives up on a man's training. If the new soldier, for instance, fails to qualify in firing his weapon he is assigned to a group for further instruction until he does qualify. At the end of eight weeks and again on the completion of his basic training he is required to demonstrate his proficiency not by a paper and pencil examination but in a practical test. At each of a series of stations an instructor gives the man a problem—assembling a rifle, reading a compass and the like. If he fails, he goes back for more training to correct his deficiencies.

A realistic phase of this is the intelligence test. At one of the stations several dummies dressed in Aggressor clothing are set up in a foxhole. The trainee is given a limited period of time to study all the props in the foxhole and he then reports to the instructor all that he has noticed. The man is scored on the number of details he has observed and remembered accurately.

Testing itself is also a learning process since the instructor must point out the mistakes to the trainee. Throughout the course the new soldier is learning to become a trainer himself particularly when, as frequently happens, he is called upon to repeat to his group what he has gained from a specific training period.

At training installations across the land, a dynamic *esprit* is evident. The men quickly realize that an untrained soldier is a liability to himself and to his unit. Most of them recognize that it is to their personal advantage to get as much out of the training as possible—that they must be good in combat in order to fight, win and stay alive. With this goal before them, the men of the Army are pitching into their training tasks with unbounded energy and enthusiasm.

Realism in Training

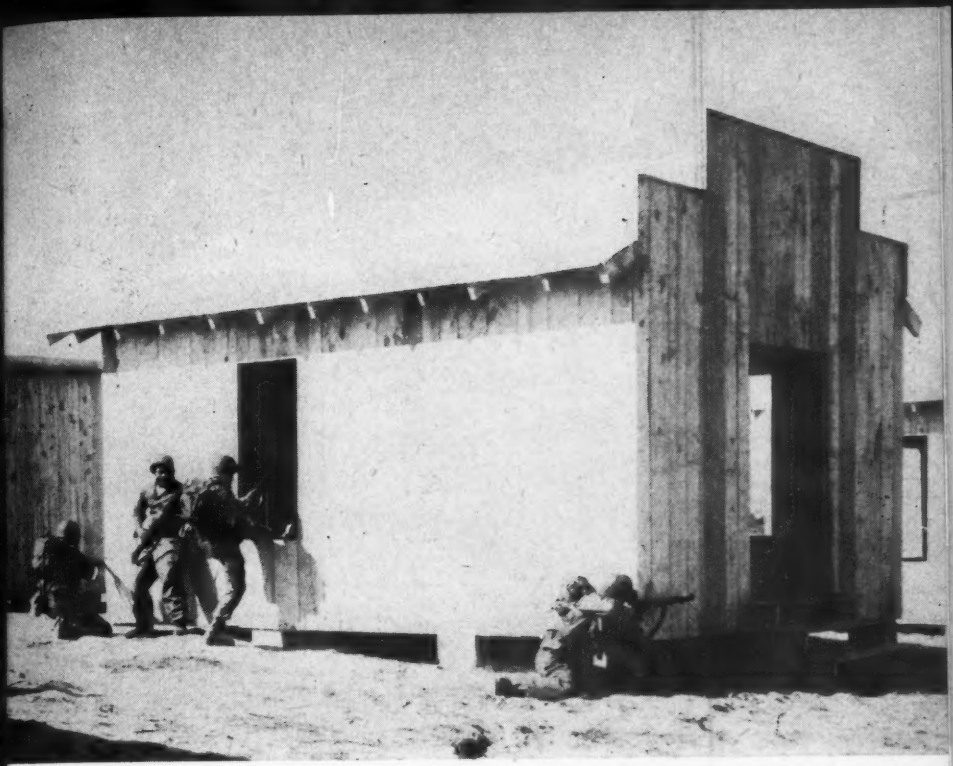


A machine gunner fires live rounds over men during battle indoctrination training. In the interest of safety, a rigid gun mount keeps the fire fixed above the troops who then slide into safety trenches (below).

Trainees inch under the wire of the infiltration course while machine gun bullets pass overhead. Below, mud becomes a factor as soldiers go through the course in rain or shine.

The new soldier learns to exercise judgment and react quickly as he fires at targets of opportunity pointed out by an instructor. Below, he fires a machine gun under careful supervision.

An instructor demonstrates the proper technique in throwing the grenade. Below, the soldier gets a realistic introduction to actual combat by bayonetting a dummy in a foxhole.



The combat-in-cities course teaches men the techniques of house-to-house fighting. Below, trainees capture Aggressor Force "enemies" in a field exercise.

Troops eat a hot meal before undertaking a night problem. Below, they return from a field exercise.

(All pictures in this section are U. S. Army Photographs)

AIR FORCE SCHOOLING FOR LATIN AMERICANS

By

MASTER SERGEANT W. F. FITZGERALD

UNIQUE among schools of the United States Air Force is its School for Latin America conducted by the Caribbean Air Command at Albrook Air Force Base in the Canal Zone. Here selected personnel from the air forces of various Latin American countries learn from USAF specialists the principles of aircraft operation and maintenance to add to the proficiency of the air arms of their own countries. Besides its immensely practical contribution in strengthening hemispheric air defenses, the school is doing much to further friendship and good will with our Latin American neighbors.

All instruction is given in Spanish by United States Air Force personnel. Small classes permit individual instruction. A large array of visual aids, training films, illustrations and mock-ups are employed to make the teaching more vivid. The classrooms actually are workshops in which the students apply practical knowledge under the supervision of USAF officer and airman instructors. The course in electrical systems, for instance, is conducted in a shop equipped with complete operating units similar to those found in airplanes, so that the student may master the intricate wiring system of the plane without having to leave the classroom. Other training aids include actual C-47 and F-47 airplanes which are dismantled and reassembled.

Two 20-week sessions are conducted each year with one class opening in January, the other in July. Subjects include power plant and aircraft maintenance, aircraft electrical systems, aircraft sheet metal work, the Link trainer, aircraft armament, aircraft instruments, aircraft propellers and radio maintenance. Successful completion of the course entitles the graduate to a mechanic's or specialist's badge and a diploma which distinguishes him as an expert in basic aeronautical engineering.

Students are chosen after being observed closely by United States Air Force mission officials on duty in the candidate's home

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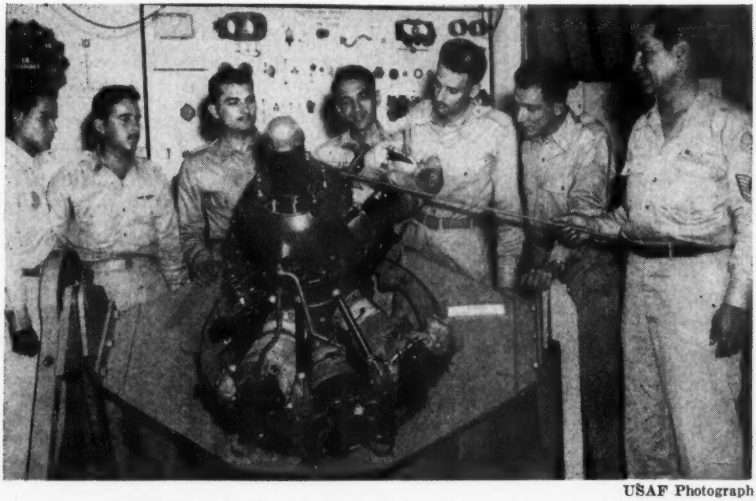
country. Outstanding men, singled out because of their aptitude in aircraft maintenance, are recommended to the chiefs of the air forces of their respective countries who then make the final selection for attendance at the Albrook school.

Once selected, the potential graduate can look forward to a fast-moving, comprehensive course which matches the curricula of the finest military technical schools in the United States. The students study under the cadet system, subject to a rigid code of discipline which stresses military conduct and bearing as well as physical, mental and recreational development. The day's training schedule includes six hours in the hangar or classroom and one hour for organized athletics. On week ends, they may visit off the base in nearby Canal Zone and Panamanian towns and cities.

The first session of the 1951 school year was the largest in the school's history with a total of 127 students from 14 Latin American countries graduating in June. The current class which began in July has almost doubled this enrollment.

Three USAF officers and 31 airmen comprise the school's staff of administrators and instructors. These men are carefully selected since they must possess a rare combination of qualities. Not only must they be leaders of high moral and educational caliber but they must have many of the attributes of the diplomat. And they must be able to speak and think in Spanish—the language used by all the students.



USAF Photograph

Students from El Salvador, Venezuela, Peru, Dominican Republic, Cuba and Colombia are instructed in the operation of an aircraft engine.

USAF Photograph

Latin American students in this class gain practical experience in radio maintenance.

Technical knowledge of the subject and outstanding instructional ability are other qualities required of instructors in the school.

The administrative staff translates certain technical publications needed by students in their studies. A well-stocked library of Spanish and English language publications relating to the aviation field is also maintained.

The beginning of the USAF School for Latin America dates back to 1943 when a request was made by the Peruvian government to the Commanding General of the Sixth Air Force at Albrook AFB to train members of its air force. The first class comprising 20 on-the-job students proved so successful that requests were received from almost every Latin American country to participate. The continuing growth of the school led to its establishment as a permanent institution in 1948. Today it occupies its own buildings and constitutes one of the important activities of the Caribbean Air Command.

Among the governments of Latin America, the school is held in high regard as another example of the friendly cooperation animating United States relations with her Latin American neighbors.

U. S. Army Photograph

This huge shop, in which tanks and other tracked combat

ARSENALS IN ACTION

By

COLONEL W. W. WARNER

A FEW days after the first United States troops met head-on the swarms of Communists rolling down from North Korea, a Rock Island, Illinois, newspaper photographer snapped a picture of several crates being loaded onto an airplane bound for an undisclosed destination. Newspaper readers that day were concerned with pleas from United Nations field commanders for a weapon which would stop the enemy's tanks then running roughshod over hastily prepared UN positions. Five days later the Rock Island newspaper readers and others all over the free world learned what was in those crates. American troops had bagged a total of seven enemy tanks out of seven encountered, using a new weapon, the 3.5-inch rocket launcher. The "super bazooka" had made its appearance on the field of battle where it proved to be the master of the best armor the enemy employed against UN forces in Korea.

The Army's Rock Island Arsenal played a highly important role in the development of that weapon. But that contribution, timely and dramatic as it is, constitutes only a small part of the work being accomplished at this Midwestern ordnance plant.

For many months prior to the start of the Korean conflict, Rock Island Arsenal technicians—Army and civilian—had labored ceaselessly to draw the plans and specifications for production of the new antitank weapon. The Arsenal shops turned out pilot models to be tested before they were ordered in quantity from private industry. Ordnance engineers discovered defects in the earlier designs and these were corrected to improve performance and insure serviceability under the rigors of combat.

After the rocket launcher had met the strict specifications demanded of all Army ordnance, Rock Island procurement officials placed orders for the required materials. Through the Arsenal offices, contracts were let for mass production by civilian manufacturers. Inspection teams closely checked the weapon's manufacture to guarantee that it would come up to prescribed standards. But even today, as "bugs" are found in the launcher, Arsenal technicians continue to devise

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methods of removing them. Improved models being designed and built in Rock Island shops promise to give the new weapon even greater effectiveness.

One of eight Army manufacturing arsenals,* Rock Island Arsenal is a Class II installation under the direct jurisdiction of the Chief of Ordnance. It functions as one of the principal research, development and engineering agencies of the Ordnance Corps. It pioneers in the use of new materials and devises methods for their most effective fabrication into finished ordnance items or their component parts. The Arsenal is charged with nation-wide procurement of specified materials and items and is equipped and staffed to manufacture or assemble particular materiel items in support of the overall Ordnance Corps mission.

More specifically, Rock Island Arsenal is responsible for conducting programs of research, development, engineering tests, pilot manufacture and packaging of the 4.2-inch mortar, mortar carriages and carts, rocket and guided missile launchers, small arms gun mounts (except for vehicles), light and medium artillery, antitank towed weapons (except guns and recoilless rifles) and loader-rammers for the Skysweeper antiaircraft gun. In addition, certain work is done in conjunction with other arsenals on ground and tank type .30 and .50 caliber machine guns, .60 caliber aircraft type machine guns and ammunition metallic belt links for these weapons. No ammunition or explosives are manufactured at the Arsenal.

Rock Island plans for the industrial production of these and other ordnance items by preparing and maintaining up-to-date descriptions of manufacture, standards of inspection, drawings, specifications, packaging instructions, prices and other data in keeping with the most efficient manufacturing practices. Every consideration is given to the conservation of critical and strategic materials in the Arsenal shops and elsewhere in cooperation with industry. Personnel, equipment and technical advice and suggestions for improving plant layouts, manufacturing processes and methods are offered to civilian producers to assist them in meeting planned production schedules. Where bottlenecks and production delays develop, Rock Island trouble shooters help in overcoming them.

The Arsenal itself is also organized and equipped to produce from raw materials certain specialized and critical items that industry is unable to manufacture readily or economically. Actually this is one of the major reasons for the existence of Army-owned manufacturing

*Others include Detroit (Michigan); Frankford (Pennsylvania); Picatinny (New Jersey); Redstone (Alabama); Watertown (Massachusetts) and Watervliet (New York) Arsenals and Springfield (Massachusetts) Armory.

arsenals. In them are found the equipment, personnel and knowledge required to produce almost any type of ordnance ranging from an infinitesimally small screw to a tank turret. And these can be produced from the idea stage through all the essential processes until they are finished and ready for shipment to using agencies. Too, Rock Island Arsenal is so geared that it can turn out a single item of a given type or an unlimited number.

Recently seven tank turret rings were needed. Obviously such a small order for a specialized piece of equipment would be an uneconomical task for private industry. Without the rings seven costly tanks would be useless. The Arsenal was sufficiently versatile to manufacture the rings as a routine assignment in its day-to-day operations.

One of the Arsenal's missions is the development and production of gauges and inspection devices required to insure the precise manufacture of ordnance parts. These are designed, manufactured or procured, kept in stock and furnished to industrial contractors to insure that all parts which they build come up to standard sizes and specifications. To the infantryman in battle this means that he may remove the bolt from his fallen comrade's rifle with confidence that it will function properly as a substitute if his own rifle bolt is broken.

The Chief of Ordnance has prescribed, as another mission of manufacturing arsenals, the establishment and maintenance of Ord-

U. S. Army Photograph

Machine gun barrels on racks are given finishing touches before shipment to the field.

nance leadership in scientific, engineering, production and management activities in their assigned fields. In this endeavor Rock Island keeps in close touch with industrial, educational and scientific organizations, other Government agencies and the several Ordnance installations. It also analyzes foreign materiel to discover innovations in armaments of both friendly and enemy armed forces.

Among the lesser known projects of the Arsenal is the development of tooling required in the manufacture of military equipment for which it is responsible. The shops make tools which may be used by industry to convert from peacetime to defense production in a minimum of time. The huge warehouses sprawled over the Arsenal grounds contain numerous basic machine tools ready for utilization in an emergency. Many manufacturers have neither the funds nor space to maintain such a stockpile for the contingency of war. Army arsenals help to fill that need in peace or conflict.

Perhaps a more dramatic and more readily obvious work being performed at Rock Island is the rehabilitation of combat vehicles, small arms, artillery pieces and various fire control and optical instruments, to name a few. Many of the huge buildings are given over to these activities. Into one of the shops come carloads of war-battered or weather-worn tanks. Huge overhead cranes swing into position to lift the turret and gun assembly from the chassis so that the detailed disassembly of the entire vehicle can begin. Each part is cleaned, then tested to determine its serviceability. Not one spring or screw is overlooked. With each successive stage in the rehabilitation process the tank is reduced to an unrecognizable assortment of parts. Finally it begins to reassume its original form until, at the end of the long assembly line, it emerges as good as new. Actually it is superior to the original new machine because modifications developed after the tank was built during World War II have been added in the reconditioning process.

Carbines, rifles, machine guns, pistols and various other weapons and parts—many appearing to be hopelessly beyond salvage—are rebuilt in other shops. In one, a large bin is filled with front sights from M-1 rifles. Such a minor item, one might think, would be ready for the scrap heap after being removed from its parent weapon. Not so. Each front sight blade is capped by welding and is run through various finishing steps so that it will again be a useful part of another rifle. In another shop, operating rods of the same M-1 type rifles, each with a badly worn piston, are plated with chrome and smoothed to their former size to make them as serviceable as ever.

Field glasses, range finders, telescopic sights, intricate fire control instruments, watches, all undergo repairs in absolutely dust-free shops

in which constant humidity and temperature are maintained. The efficiency of these precision instruments in the field is a direct result of the meticulous attention given them by the specialists to whom their repair is entrusted.

In the Rock Island laboratories, research is conducted on various types of rubber, all-temperature lubricants, corrosion preventives and non-metallic materials, any of which may be assigned for analysis by the Ordnance Corps.

Besides manufacturing and research and development, the Arsenal provides considerable field service. In some 45 warehouses, totaling over two million square feet of floor space, are stored arms, equipment and parts representing an investment of nearly one billion dollars. Although many of these items have been kept in top condition since World War II, a large number of them have seen service and must be completely overhauled in the Arsenal shops before being shipped to the field.

The largest of the storehouses comprises more than 17 acres under one roof and on one floor. A loading dock in the building is capable of accommodating 50 freight cars at one time. In it also are the receiving and shipping sections, a box shop and a reconditioning plant. Some 600 employees, many of them women, are kept busy in the operations of this unit alone. So numerous are the items stocked in this building that a special team of 40 full-time employees normally requires a year to complete an inventory.

A small railroad system, a rail and highway bridge over the Mis-

U. S. Army Photograph

After processing at Rock Island Arsenal, these medium tanks are loaded and ready for shipment.

Rock Island Argus Photograph

Arsenal workers put final touches on an M-36 medium tank. The covering over the muzzle of the 90mm gun protects the bore during shipment.

sissippi River and even a national cemetery are operated and maintained by the installation.

Besides its activities on behalf of the Army, the Arsenal conducts projects for other Government agencies, including the Navy, the Air Force, the Department of the Interior and others.

Established by Act of Congress in 1862 as a national arsenal on a 950-acre island in the Mississippi River, Rock Island Arsenal figured prominently in the Spanish-American War and in World Wars I and II. The island, before becoming an arsenal, had been the favorite hunting ground of Black Hawk, famous chief of the Sac Indian tribe who fiercely resisted the white man's encroachment.

In the nearly ninety years since its establishment, Rock Island Arsenal has become an increasingly important activity in our armament organization. Through wars and other military crises it has developed to the point where, during World War II, nearly 16 million pieces of ordnance equipment weighing approximately 750,000 tons were produced to support the Allied war effort.

Today Rock Island is again engaged in the serious business of reinforcing the armed strength of the free nations of the world.

NEW DEVELOPMENTS IN NAVY WEAPONS

By

REAR ADMIRAL MALCOLM FRANCIS SCHOEFFEL

THE Navy Bureau of Ordnance has the responsibility for providing our country with the best naval fire power in the world—fire power which will enable the Navy to operate defensively and offensively in any area, either alone or in support of the Army and the Air Force. Since the potential theaters of action are world-wide and the sources of potential opposition are simultaneously on, above and below the seas, naval readiness requires the utmost flexibility in personnel and specialized equipment. This necessitates having many types of weapons in the Navy for immediate use as circumstances may dictate.

REAR ADMIRAL SCHOEFFEL

Research and development to improve the weapons needed by both the Army and the Navy received sharp impetus during World War II. Throughout the war, the Nation's scientific and technical talent was integrated with the military talent as never before in history. This teamwork shortened the war and produced among many other lasting achievements the atom bomb, proximity fuze and radar.

After VJ Day, the Navy Bureau of Ordnance consolidated its research and development organization. The ground work was laid for developing weapons of much greater effectiveness than had been considered even possible before Pearl Harbor. As part of the program, the Bureau completed its two largest research facilities—the Naval

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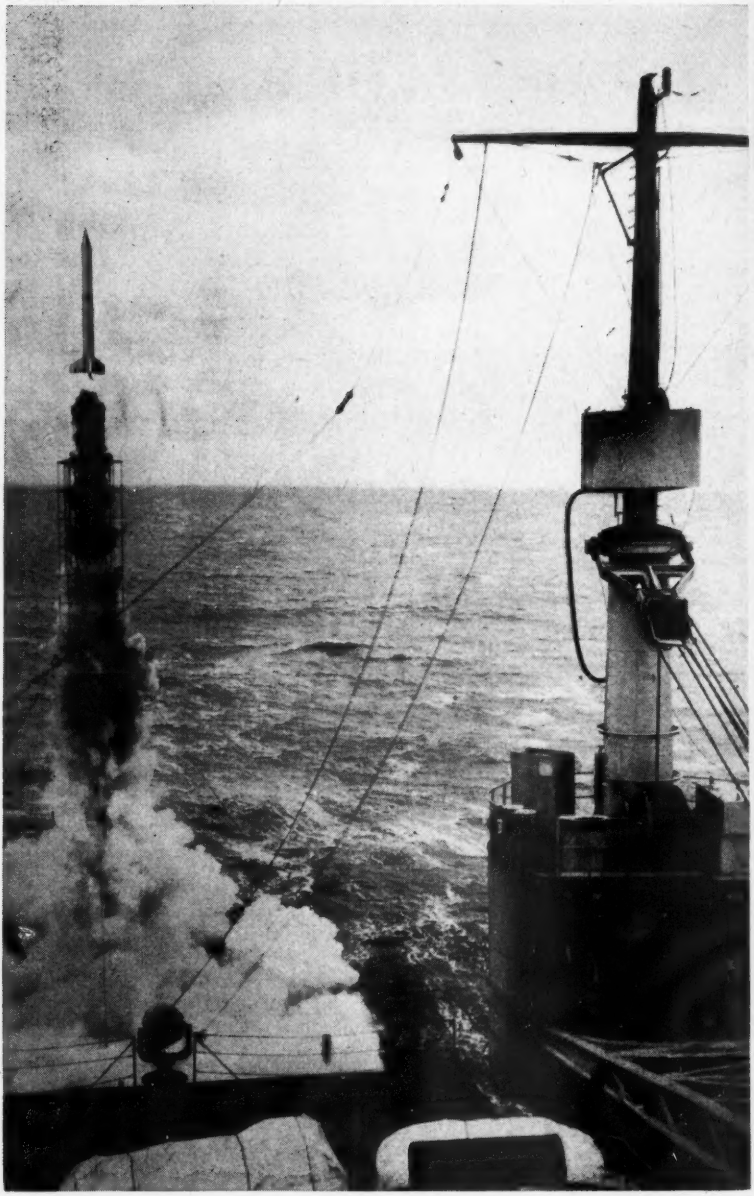
REAR ADMIRAL MALCOLM FRANCIS SCHOEFFEL, USN, is Chief of the Bureau of Ordnance, Department of the Navy.

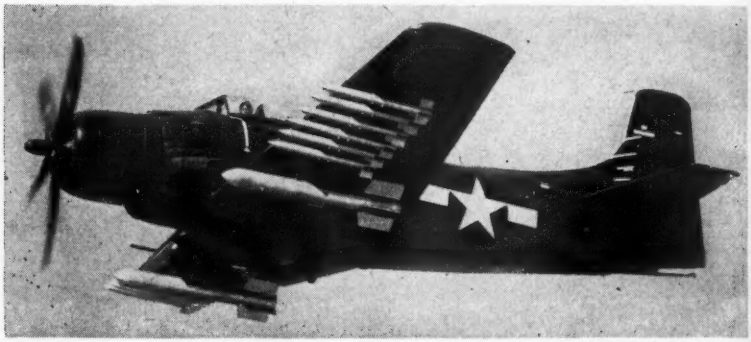


U. S Navy Photograph

The Aerobee, shown here being fired from the *USS Norton Sound,* reached an altitude of approximately fifty miles.

U. S. Navy Photograph

This 1000-pound bomb being hoisted from a carrier deck into a Task Force 77 plane was delivered on a Communist target in Korea.



U. S. Navy Photograph

A Navy Skyraider carries two "Tiny Tims" plus a full rack of smaller rockets.

Ordnance Laboratory at White Oak, Maryland, and the Naval Ordnance Test Station at Inyokern, California.

The Naval Ordnance Laboratory is the Navy's principal center for research in the fields of magnetism, underwater ordnance and aeroballistics. The Laboratory is also engaged in the development of new explosives. Included among its research installations are supersonic wind tunnels which were captured from the Germans by American troops at Kochel, Bavaria, and reconstructed with many design improvements at White Oak. By means of a vacuum system, supersonic speeds corresponding to 8.3 times the speed of sound have been attained in the tunnels.

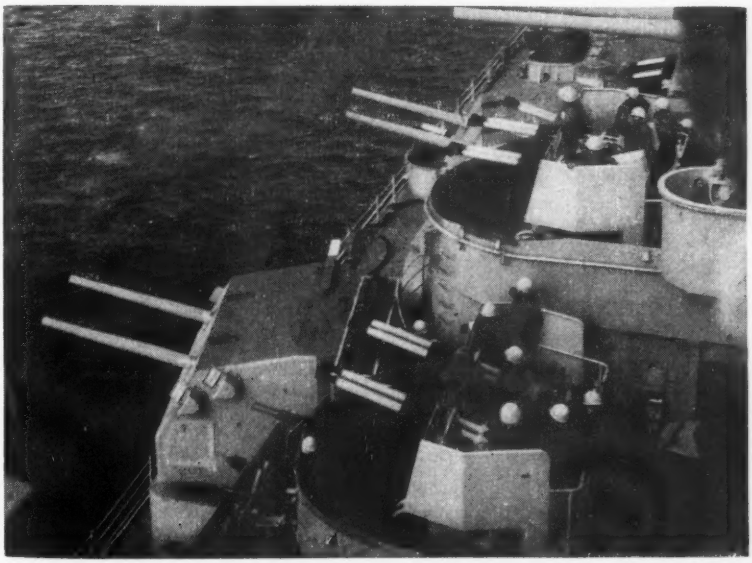
The Naval Ordnance Test Station at Inyokern, covering an area of more than 1000 square miles in the Mojave Desert, is engaged in research, development, proving and testing of rockets, guided missiles, bombs, explosives and fire control equipment.

It was at Inyokern that the RAM, the Navy's new antitank aircraft rocket, was developed, tested and manufactured in just twenty-two days. This new weapon serves as an excellent example of results achieved by interservice cooperation. In July 1950, just after the Korean conflict broke out, our forces were having serious trouble stopping the Soviet-built tanks with the weapons then at their disposal. In conferences between the Air Force and the Navy, plans were worked out for development and production of the new rocket for use by both services. Navy, Marine Corps and Air Force pilots were sent to Inyokern for familiarization with the new weapon. The Far East Air Force and the Pacific Fleet supplied the planes which delivered the rockets to our fighting forces without delay. To insure against any unforeseen technical difficulties, two civilian specialists

from the Naval Ordnance Test Station accompanied the first shipments to Korea.

The RAM may be fired from any plane equipped with a suitable launcher but is used principally by fighter and light attack planes. Techniques have been developed enabling Air Force F-51s and F-80s, each carrying eight of these missiles under its wings, to release the complete load simultaneously. Although specifically designed for use against tanks, the RAM also can be used against other types of heavily armored vehicles and ships as well as against concrete fortifications.

Some of the most important of the Bureau's research programs are carried out by universities and industrial organizations. "Bumblebee," a project initiated in the fall of 1944 for the development of supersonic guided missiles, involves, for example, seven industrial concerns and eight universities, all holding prime contracts with the Bureau of Ordnance. Their research and development work is being performed under the coordination and technical direction of the Johns Hopkins University Applied Physics Laboratory at Silver Spring, Maryland. Many important advances in guided missiles techniques have been achieved by this Navy-industry-university team, among them the supersonic ram-jet engine nicknamed "the flying stovepipe" and a liquid-fueled rocket called the Aerobee.



U. S. Navy Photograph

The Navy Bureau of Ordnance develops weapons to increase the fire power of ships such as this one in action off the Korean coast.

The Aerobee rocket is being utilized by all the services for upper atmosphere research, especially to obtain essential data on the environment at high altitude through which missiles will one day fly. Aerobee rockets have been successfully fired at various altitudes from the deck of the *USS Norton Sound*, a seaplane tender which was converted in 1948 to an experimental guided missile ship following the Navy's initial shipboard launching of a V-2 rocket from the *USS Midway* in September 1947. Since the end of World War II, captured German V-2 rockets have been fired by the Army at its White Sands Proving Ground, as upper air research vehicles for all three services.

It is no secret that one of the most active programs in which all the Armed Forces are engaged is the development of guided missiles. In order to eliminiate undesirable duplication and to insure free interchange of information among all the agencies engaged in guided missiles development, the program is coordinated by the Guided Missiles Committee of the Research and Development Board and by the Office of the Secretary of Defense.

The Navy Bureau of Ordnance carries on a substantial portion of the integrated guided missiles program. Work on one missile has advanced sufficiently to warrant negotiations for construction of the Navy's first plant for the large-scale production of guided missiles.

The Bureau has been alert to the changing trends in air warfare brought about by the advent of supersonic aircraft and devotes a substantial portion of its efforts and funds to aviation ordnance. Significant improvements have been made in conventional weapons carried by aircraft. There is a new machine gun in immediate prospect which has the advantage of increased rate of fire, higher velocity and lighter weight. There are new streamlined bombs designed for jet aircraft. The first air-to-air rocket, nicknamed the Mighty Mouse, is about to come into service in both the Navy and the Air Force.

New fire control systems for aircraft will permit greater maneuverability. Because the new systems will enable dive bombers to release their bombs from higher altitudes, vulnerability of the planes to antiaircraft fire will be materially lessened.

While the provision of an effective defense against high performance aircraft and the emphasis on the strategic and tactical uses of air power colored military thinking during and immediately after World War II, the Navy in addition has had to put much effort into the parallel and equally necessary demands of antisubmarine warfare as posed by increasing improvements to submarines. The future submarine, with its high-speed, deep-diving and long-submergence capabilities, seems destined to match the spectacular and much-publicized brilliance of high-flying, speedy aircraft. It will be a phenomenally

fast performer as compared to the enemy submarines defeated in 1943.

Enemy submarines in two World Wars proved a dangerous threat to our control of the seas and very nearly brought disaster to the Allies. The Navy has learned its lesson well and is determined to contain and defeat the undersea threat in future warfare. One of the most active and important programs in the Bureau of Ordnance, therefore, is the development of radically new antisubmarine warfare weapons and the modernization of existing equipment.

The effectiveness of German torpedoes against Allied forces in World War II is a matter of general knowledge. The effectiveness of our own torpedoes has not been so publicized and is less well known. New types are being developed to be fired from surface ships, submarines or aircraft, including a high-speed torpedo capable of destroying an enemy submarine at any depth to which it can submerge. These are vastly superior to both the German and our own World War II torpedoes and will present a definite threat to any submarine now in existence or being built.

During World War II the Bureau of Ordnance conducted an extensive program for the development and production of guns of all calibers for use against aircraft. While it now appears obvious that in future wars guided missiles and interceptor planes with vastly improved striking power will play important roles in protecting the fleet from air attacks, the antiaircraft gun will still be an essential weapon. Encouraging progress has been made in developing antiaircraft guns with greatly increased rates of fire.

For the control of these new guns, fire control systems markedly superior to World War II types have been developed. Some of them have as many as a thousand vacuum tubes capable of performing ballistic computation with a high degree of accuracy.

Navy ships will soon be fitted with new target designation equipment to solve the problem of rapid zeroing-in on air targets. This equipment provides for the fast transfer of the aerial target from air search radar to a fire control system which will then automatically track the designated target.

Many of the new weapons are now in quantity production. Other implements of potent fire power are reaching the final evaluation stage. Their timely introduction into the fleet will insure that the United States Navy will continue to fulfill its national defense responsibilities, backed by the world's most effective naval fire power.

AIRBORNE SUPPLY OPERATIONS

By

LIEUTENANT COLONEL HAROLD L. DORSETT

AIRDROP supply, the newest activity of the Quartermaster Corps, can be likened to a combination grocer, druggist, hardware dealer and filling station which takes orders by radio and minutes later drops the requested items in one's backyard.

Only recently the plans were completed transferring from the Air Force to the Army Quartermaster Corps responsibility for storage, issue and maintenance of Army parachutes and airdrop equipment. Meanwhile, Army Quartermaster Corps technicians trained in methods of parachute packing, maintenance and aerial delivery have been demonstrating in the acid test of battle their capabilities in the field of airdrop supply.

The 8081st Quartermaster Aerial Supply Company in Korea, a newcomer to the array of airborne units, was the first of its kind to be activated. Since its initial operation in September 1950, it helped to drop 45,000 tons of supplies to United Nations forces in the combat zone. The airborne Quartermasters received and prepared all Army equipment and supplies for airdrop, then accompanied the cargo to the target and prepared the supplies for ejection over the drop zone. Men of the unit sometimes parachuted into the drop zone along with the supplies to recover parachutes and airdrop equipment for re-use in subsequent operations. When occasions required, they also packed and maintained personnel parachutes just as an airborne division's parachute maintenance company does for the paratroopers of its unit.

In general, an airdrop supply operation consists of tying down trucks, guns, food and supplies to special airdrop platforms which permit rapid ejection of the cargo from the plane in flight and protect the materiel against landing shock. Huge parachutes are next carefully rigged and attached to the equipment to be dropped. The cargo is then loaded into appropriate Air Force or Navy troop carrier type aircraft. The airdrop cargo is lashed to the inside of

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LIEUTENANT COLONEL HAROLD L. DORSETT, Quartermaster Corps, was until recently Chief of the Air Plans and Policy Office in the Office of the Quartermaster General, Department of the Army.

the plane so that it can be released quickly and without jeopardy to plane or crew.

The airdrop supply technique harnesses the capabilities of transport aircraft to the conventional depot operation. By this technique, distribution of ammunition, food, gasoline, medical and other essential supplies can be accomplished despite barriers of jungle, high mountains or other terrain obstacles. Field operations in the Far East have demonstrated significant and novel capabilities of the system in a direct tactical role. The 8081st Quartermaster airdrop organization, for example, assisted in the evacuation of the hard-pressed U.S. Marines in the Chosin Reservoir area by airdropping a U.S. Army M-2 Engineer treadway bridge. Airdrop of ammunition to a specific gun was not unusual in many of the hard-fought artillery engagements in Korea.

Such airdrop activities point out powerful tactical and logistical possibilities. They suggest the emplacement of artillery on hitherto unattainable terrain under conditions duplicating, for example, the gruelling Italian campaign of World War II. Airdrop can assist in river crossings and amphibious landings by making immediately available on the beachhead heavy weapons which might not be transportable in the early phases of water movement. Likewise, air-

U. S. Army Photograph

A C-119 delivers ammunition and other supplies to the 1st Cavalry Division in action near Chipyong, Korea.

U. S. Army Photograph

Heavy items in an airdrop may require two or three parachutes. Here gasoline in 55-gallon drums is being dropped in Korea.

drop support of armor in exploitation and pursuit phases of combat has tactical implications justifying serious consideration.

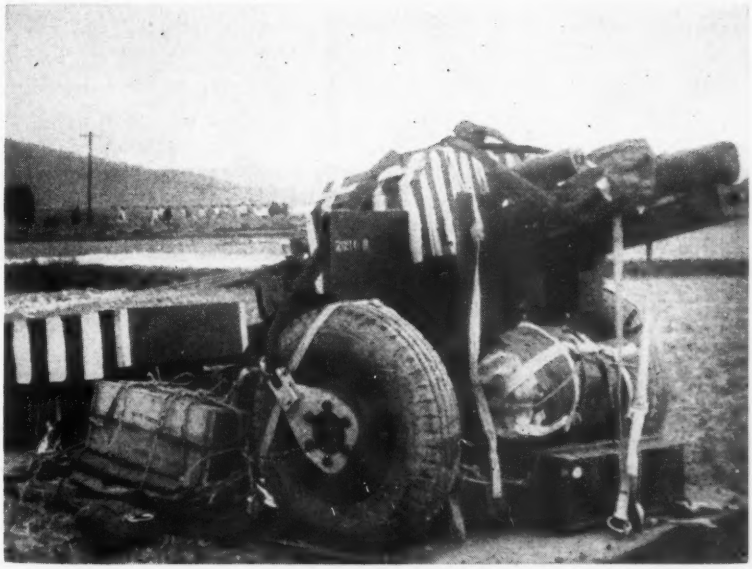
The fundamental unit in Quartermaster support of airborne operations is the Quartermaster Parachute Maintenance Company organic to the airborne division. This organization is charged with the vital function of packing and maintaining the parachutes for every paratrooper of the division. Personal safety, morale and combat capability of the entire airborne division depend in large measure on the competence of these parachute maintenance personnel. The parachute packer in turn guarantees his work and signifies his self-confidence by standing ready at all times personally to jump with any chute which he packs.

With the cooperation of the Air Force, the Army has assimilated into its own logistical system the storage, issue and depot maintenance of all Army airdrop items. This requires integrating into the Army a host of new skills and the activation of additional maintenance and supply organizations. As a part of this planned program a non-divisional maintenance organization, tentatively designated Quartermaster Air Equipment Maintenance Company, has been approved in concept. The unit will repair all Army items of airdrop equipment and perform depot repair for a force equiva-

lent to two airborne divisions with supporting troops. Besides supplementing the field repair activities of the Airborne Division Parachute Maintenance Company and the Quartermaster Aerial Supply Company, the unit will have the responsibility of returning to depot stocks expensive and critical airborne equipment for re-use.

The Quartermaster Corps program for support of airborne operations received considerable impetus in March 1950 when the Quartermaster General named an *ad hoc* committee composed of experts from the active airborne divisions; the Department of the Army General Staff; the Office of the Chief, Army Field Forces; the Quartermaster General's Office; and others with kindred interests in airborne matters. The committee reviewed the problem of airborne operations in the light of the Quartermaster Corps' new assignments. Witnesses included General Matthew B. Ridgway, Lieutenant General A. C. McAuliffe, Major Generals William M. Miley, Clovis E. Byers, W. O. Reeder, James M. Gavin and other leaders who pioneered Army airborne operations. The committee's findings and recommendations, approved by the Department of the Army, set in motion a host of significant logistical innovations.

The establishment of courses in parachute packing, maintenance



U. S. Army Photograph

Guns as large and heavy as a 105mm howitzer can be airdropped to troops. This one was sent to support the 187th Regimental Combat Team near Pyongyang, Korea.

and aerial delivery—approved in January 1951—marked the first time in the history of the Quartermaster Corps that specific air training has been given to Quartermaster troops. The first class conducted at Fort Lee, Virginia, consisted of twelve weeks of instruction, identical for both officers and enlisted men.

As prerequisites for attendance students must be currently qualified in parachute jumping by graduation from the airborne basic course at Fort Benning or by duty with an authorized airborne division. A physical training program is conducted as part of the course. Beginning on a moderate basis and gradually building up during the three-month course, the physical training program develops the students to the point where they are fully capable of passing the most rigid prescribed airborne physical fitness tests. Upon graduation officers are accredited as air equipment maintenance or airdrop technicians; noncommissioned officers as parachute packers and repairmen chiefs; and other enlisted personnel as parachute packers and repairmen.

As the Army has taken to the air to a substantial degree, the scope of airborne operations has been vastly expanded. This has generated a demand for unique equipment—nylon webbing with 10,000 pound tensile strength, millions of yards of nylon parachute cloth of high durability and strength, with specified porosity but limited to minimum weight. The furnishing of great numbers of heavy drop kits, giant parachutes and similar equipment requiring considerable lead-time to produce, accents the urgency for maximum conservation and economy in use. It is here that the Airborne Equipment Maintenance Company is expected to make a salient contribution in the reclamation of equipment recovered and evacuated from the drop zones. Equipment so recovered will be processed through maintenance and returned to storage. The storage and issue function will be performed in the field by a conventional Quartermaster Clothing and General Supplies Depot, modified as necessary for the assumption of the additional responsibilities.

The continental United States system of fixed Quartermaster installations constitutes the backbone of an extensive Army supply and maintenance organization. The mission of providing this world-wide storage, issue and depot maintenance backup for Army airdrop equipment has been delegated to the Quartermaster Depots at Jeffersonville, Indiana, and Richmond, Virginia.

The Jeffersonville Quartermaster Depot, a manufacturing plant in its own right, has been assigned the air maintenance activity inside the United States. In support of this function a modern air equipment maintenance plant is being constructed, capable of

complete assembly rebuilding for all items of Quartermaster air equipment. When necessary, the Depot also will undertake emergency manufacture of major items.

Storage and issue of Quartermaster air equipment world-wide has been assigned to the Richmond Quartermaster Depot. In the latest type air-conditioned brick warehouses, the required inspection, storage and issue of aerial delivery equipment is carried on in accordance with the latest scientific operating techniques. Among the outstanding operations at the Richmond Depot Air Section is a pre-issue inspection service performed by 300 airborne-trained officers, enlisted men and civilians. Here, a staff of expert inspectors goes over every thread and grommet of all personnel parachutes and airdrop equipment.

In addition to his newly acquired responsibilities for storage, issue and maintenance of Army parachute and airdrop equipment, the Quartermaster General recently has been granted authority to purchase this type of supplies. Recognizing the importance of aerial supply and airborne operations, theater commanders have added active airborne officers to their Quartermaster staffs. Taken together, these trends and developments reflect the increasing importance of airdrop supply activities in the Nation's defense.

U. S. Army Photograph

Lashing objects like this 55-gallon gasoline drum requires skill which Quartermaster troops must learn in order to prepare supplies for airdrop.

LEADERSHIP AT WEST POINT

By

COLONEL SAMUEL E. GEE

THE primary mission of the United States Military Academy is to develop military leaders for our Nation—a mission which has remained unchanged since the Academy was founded in 1802. Everything and everybody at West Point contributes to this accomplishment. The place itself is hallowed in history. The venerated monuments, the ivy-hung halls and the picturesque valley have become symbols of the Nation's struggle for freedom and an inspiration to all who gaze upon them.

Only the best officers are selected for duty at West Point, for it is they who set the example for the cadets to follow. Every department at the Academy contributes toward the development of leaders. The Academy's Honor System, its Aptitude for the Service System and the activities of its Duty Committee are designed to build character and develop the world's finest military leaders.

Fundamentally, the entire program of the Military Academy is designed to equip men for leadership in peace and war. Combat leadership is the end result to which all training, formal and applied, is pointed. The requirements for entrance, the curriculum and the standards and patterns of behavior required of the cadet have as their determining factor potential leadership on the field of battle.

Classroom instruction in leadership was intensified at the Academy in January 1946. At that time General of the Army Dwight D. Eisenhower, then Army Chief of Staff, directed the Superintendent to include in the curriculum a course in applied psychology—one which would further awaken cadets to the necessity for handling human problems on a human basis as a means of improving leadership and personnel handling in the Army. As a result of this directive the Department of Military Psychology and Leadership was established within the Department of Tactics.

A going concern today, the Department of Military Psychology and Leadership conducts a progressive four-year course of instruc-

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COLONEL SAMUEL E. GEE, Infantry, is Director, Department of Military Psychology and Leadership, United States Military Academy.

tion in human behavior and the techniques of handling men. Fourth Class cadets are given an 18-hour course which includes the history of the Army, history of West Point, cadet life, the academic system at West Point, Fourth Class customs, West Point regulations, duty and honor. Besides being informative this instruction is inspirational as well, for the First Class cadets present most of this instruction. It is stimulating and encouraging to the new cadets to be taught by men who were in their shoes a short three years before.

Early in the Third Class year a course in general psychology is given comparable to the sophomore general psychology courses offered in leading colleges and universities. Topics taught include personality, individual differences, intelligence, motivation, emotions, control of emotions, reactions to conflict, adjustment, sensation, perception, learning and social problems.

During the Second Class year instructional emphasis is shifted from general principles to practical application. Another course stressing leadership within the Corps of Cadets helps prepare the Second Classmen for their duties when, as First Classmen, they are called upon to administer and lead the Corps. A Military Instructor Training Course is also given during the last two months of the Second Class year. Here again the practical application of educational psychology is emphasized.

As a part of the Military Instructor Training Course, each cadet is required to prepare and make three separate presentations. He delivers a 15-minute lecture to the other members of his section; he then conducts a 30-minute conference or lesson; and finally he directs a 15-minute discussion. The cadets prepare written critiques of each of these presentations, and in addition one cadet is called upon to give an oral critique immediately following the presentation. This course—probably one of the most popular at the Academy—is completed just before the Second Class assumes its summer duties which include instructing the new Fourth Classmen, the Third Classmen at Camp Buckner and recruits in various Army replacement training divisions and Air Force indoctrination centers.

The First Class year psychology course is designed to acquaint the cadets with tested leadership techniques within the service—techniques which will help prepare them for duty as lieutenants in the Army or Air Force. The course is divided into three phases. The Military Management phase deals with methods of accomplishing a job in the most effective and economical manner. The Military Personnel Management phase provides a concentrated summary of current Army policies and practices for the optimum utilization of manpower. The final phase takes up in detail the following prin-

ciples of leadership as set forth in Department of the Army Training Circular 6, 1948: "Take responsibility for your actions, regardless of their outcome. Set the example. Know yourself and seek self improvement. Develop a sense of responsibility among subordinates. See that the task is understood; then supervise and follow through to see that it is carried out. Know your men and look for their welfare. Keep your men informed. Train your men as a team. Employ your command in accordance with its capabilities. Know your job."

To provide training in these principles of leadership, specific problems are reenacted in which the cadet takes the part of an officer and the instructor takes the part of a soldier. The cadet is then required to provide a solution to the problem. In a typical dramatized situation, a soldier is shown reporting to his new unit where the officer meets him and assigns him to a job. The soldier may be presented as an older married man with a family returning from overseas. Again the problem may be repeated with a different type of soldier involved—one who is young, irresponsible, antagonistic. These shifts are made mainly to demonstrate that no two cases can be treated alike, but that each must be solved individually and on its own merits. Another example that might be employed, this time in a simulated combat situation, is the problem confronting a junior officer when one of his men "freezes" in his foxhole and fails to direct his fire at the enemy. Again, the officer may be called upon to give his men a final briefing before an attack.

In a variety of ways this intensely realistic application of principles of psychology brings into play many of the fundamentals learned in four years of leadership training.

As part of the course in Military Psychology and Leadership conducted at the United States Military Academy, each cadet in the Class of 1951 was required to prepare a paper on some phase of leadership. The following statement has been selected by the Director of the Department of Military Psychology and Leadership as typical of the insight and awareness of leadership principles developed at the Academy.

The author, Lieutenant Andrew Cunningham Remson, Jr., Corps of Engineers, was a cadet in the Class of 1951, United States Military Academy, at the time his paper was presented.—*Editor.*

WHAT WINS BATTLES?

By

LIEUTENANT ANDREW CUNNINGHAM REMSON, JR.

IS IT better equipment, better position, larger numbers, better training or something else that wins battles? All of these factors are, of course, important. Yet the military history books record many battles which were won by armies inferior in numbers, equipment or training, or operating from unfavorable positions. There must be another factor—one strong enough to outweigh these others either alone or in combination. That factor is leadership.

In order best to insure the success of our Armed Forces in battle, they must be provided with good leaders. There are, of course, a few "natural leaders"—men who without benefit of formal training in leadership can take charge of a group of men and convert it from a mob to an efficient fighting machine. But a nation in arms requires thousands of leaders. The number of these natural leaders is far too small to satisfy the demands of modern total war. We must be able to teach leadership to men qualified to become leaders and also to increase the ability of those gifted with native leadership qualities.

Before leadership can be taught, however, we must organize the principles into a unified philosophy. To do otherwise is to court disaster, for students will not learn well nor remember long, material which is taught merely as individual and unrelated principles.

There are two principal methods of accomplishing this organization. First, it could be based upon the lives of great military leaders or, second, it could be based upon the principles of psychology from which all sound principles of leadership are derived.

The first method has several advantages. The lives of the great leaders offer inspiring examples to the neophyte in the leadership field. This method also helps break down the compartmentation which tends to develop a barrier even between two subjects as closely allied as are military history and leadership. Likewise, this approach emphasizes the results of good leadership and the dire catastrophes that may result from failing to follow the correct principles.

However, this line of attack also has several serious drawbacks. Great military leaders are often more conspicuous because of their differences than because of their similarities. Among Napoleon's marshals, for example, Davout and Ney both molded their commands—often poorly trained and shabbily equipped—into units

which won many victories. Yet the methods these leaders used were quite different. The beginning student is confused by these differences and often remembers the idiosyncrasies of colorful leaders, not the principles which made their efforts successful.

The second approach—organizing the leadership principles around the pertinent principles of psychology—also has at least one serious disadvantage. This approach makes it necessary to teach the student basic psychology before beginning to teach him the principles of leadership. To acquire this knowledge requires a considerable amount of time but the advantages offset all this.

First, this approach meets the basic requirement of organizing the principles of leadership into a unified whole and hence making them easier to teach and more likely to be retained. Second, relating the principles of leadership to the pertinent principles of psychology tends to promote a thorough understanding of the principles of leadership rather than a mere mechanical memorization.

In the study of leadership just as in the study of mathematics, the student derives infinitely more benefit from an understanding of the basic principles involved than from an uncomprehending memorization of the solutions to problems. An understanding of the basic principles, for one thing, helps increase the student's flexibility. It is impossible—or at least highly impractical—to develop maxims of leadership which will fit every conceivable situation. The student will probably eventually encounter a situation the solution to which he cannot readily obtain merely by applying the maxims of leadership he has been taught. If he has merely memorized certain rules or maxims of leadership, such a situation will probably baffle him. If, on the other hand, he is familiar with the basic principles of psychology upon which the principles of leadership are based, he will probably be able to solve the problem and to develop new, sound maxims of leadership applicable to similar situations.

A final major advantage of integrating the principles of leadership with those of psychology is that this integration encourages the military student to go deeper into the study of psychology. The officer spends years studying the tactics and materiel of war. The final and decisive materiel in any war, however, is man. It is only logical, therefore, that the study of psychology should be of vital interest to the military leader.

The leader is a practical psychologist who borrows the principles of psychology and applies them to the solution of his problems in leadership. Take, for example, the principle of basic psychology which psychologists refer to as "identification." This is the tendency for people unconsciously to develop qualities and attributes of those

whom they respect. The maxim of leadership, "Set the Example," is directly derived from this principle. Properly used, this phenomenon can be one of the most powerful weapons in the armory of the military leader. If abused, it may work to his disadvantage.

The Army officer is in an ideal position to serve as an example to his men. He has been assigned as their leader and wears the visible insignia of his rank. All the accumulated traditions of hundreds of years of military history serve to enhance the prestige of his position. In addition, the military leader is also often a teacher of his men, which further strengthens his position. Thus it is only natural that the men look to him to set the example.

In order fully to utilize this natural tendency, the leader must make certain that he is known as the leader and that his presence is felt constantly by every member of his command. For an officer who takes command of a unit after serving as a subordinate officer in that unit for some time, this task, at least, is not too difficult. He knows and is known by all of the men, and they are accustomed to receive orders through him and to look up to him. As new men are assigned to the unit, he can get to know each one individually. Far more difficult, however, is the task of an officer newly assigned to a unit as commanding officer. He must make his presence felt by a group of strangers without doing it in so obvious a manner as to antagonize them. A formal introduction to the assembled unit and a good, short speech may help overcome this initial obstacle.

The efficiency of the principle of identification in helping the leader impress his standards upon his unit is probably its greatest advantage. This efficiency is no doubt due largely to the fact that the principle operates indirectly rather than directly; that is, the follower is often not even aware of its operation at all. Psychologists state that such indirect stimulation is usually stronger than direct. For example, if one orders a soldier to polish his shoes every day and checks frequently to see that the order is carried out, one may attain the desired standard. But when the frequent checks come to an end, the shoe polishing will probably stop very soon thereafter. The soldier acting under this type of compulsion will stop as soon as he is able. If, on the other hand, the soldier may be induced to polish his shoes voluntarily, following the example of his squad leader or platoon leader, he is much more likely to continue the practice. Naturally, the method of example is not always effective. In many cases standards must be maintained by orders and frequent checks. When the method of example may be used, however, the results obtained will be both more widespread and longer lasting than if the method of orders and checks had been employed.

In addition to its efficiency, the method of example has also the advantage of simplicity. Once a leader has obtained the respect of his followers, he may initiate improvements in the standards of his unit merely by raising the standards to which he conforms. To take advantage of the identification tendency, the leader must simply act as he wants his followers to act.

From this simplicity of the example method, however, stems its greatest difficulty. The principle operates constantly—it cannot be turned on and off at the will of the leader. The followers are watching the leader all the time. They will emulate his bad points just as readily as, or more readily than, his good ones. Thus the categorical imperative of philosophy—"so act that your every action may be made into a universal rule of conduct for all"—is even more applicable to the military leader than it is to other men. Every action must be weighed not only for its own inherent value but also for its influence on the followers. For example, many leaders when passing on unpleasant orders from their superiors seek to gain a cheap popularity with their followers by indicating that they do not agree with the orders and are issuing them only because of pressure from above. In addition to the undermining of respect for higher authority which is an immediate result, this technique has another long-range difficulty. Following the example set by such a leader, his subordinates will tend to use the same technique in passing on his orders and thus weaken his position. A leader who realizes the power of the identification tendency should not make this mistake.

It has not been the purpose of this paper to develop a complete philosophy of leadership based upon principles of psychology. Rather has it been the purpose to demonstrate, by using the principle of identification as an example, how such a philosophy may be developed. This technique may be applied to other principles of basic psychology to produce a unified philosophy of leadership.

Although this method of organizing a philosophy of leadership seems to be the best, it does not inevitably follow that all other methods are bad and must be abandoned. Let us not with one fell swoop wipe out all the other methods of organizing and teaching leadership. Many of these venerable methods—developed, no doubt, by the bloody process of trial and error—are actually quite sound psychologically. Many of the methods endorsed in the *Military Institutions* of Vegetius, for example, fall into this category. Parts of Machiavelli's *The Prince* read like a modern textbook on military psychology and leadership. The fact that these principles were derived inductively from practical experience instead of being deduced from proved psychological principles does not detract from their value.

ARMY LANDMARKS

Walter Reed Army Hospital

Named in honor of Major Walter Reed who was born 100 years ago this month, this Army landmark commemorates the distinguished medical officer who helped eradicate the yellow fever scourge. The original hospital was founded in May 1909 in Washington, D. C. Around it has grown the Army Medical Center which in addition to Walter Reed Army Hospital now includes the Army Medical Service Graduate School, the Central Dental Laboratory, a school for practical nursing, the Army's Audiology and Speech Correction Center and the Army Prosthetic Research Laboratory.

The 149-building Army post, with red brick structures of early American architecture and distinctive landscaping, stands on an old Civil War battleground less than five miles from the United States Capitol. For many years it was the home of the late General of the Armies John J. Pershing who as Chief of Staff signed the order creating the Army Medical Center in 1923.

The Army Medical Service Graduate School was founded in 1893 and became a part of the Center in 1923. The Central Dental Laboratory, one of five such laboratories in the continental United States, was originally established in 1927 to provide facilities for dental construction and repair. The Audiology and Speech Correction Center, established in 1946, is the only center now operated by the Army for the rehabilitation of deafened military personnel. The Prosthetic Research Laboratory—known as the Forest Glen Section of the Army Medical Center—is located in near-by Montgomery County, Maryland. It occupies buildings that once comprised a fashionable girls' school. Acquired in 1942 for use as a convalescent center, the facilities were later utilized for research and development of artificial limbs.

Walter Reed Army Hospital expanded from 1700-bed to 3000-bed capacity during World War II. To this Center, from far-flung parts of the world, come physicians and surgeons, nurses and specialists of the Army Medical Service for study, research and familiarization with the latest advances in medical science.

(Picture on back cover.)
U. S. Army Photograph

Administration Building, Walter Reed Army Hospital